

FUNDING REIMBURSEMENT AGREEMENT

SONOMA-MARIN AREA RAIL TRANSIT DISTRICT AND COUNTY OF SONOMA

THIS REIMBURSEMENT AGREEMENT ("Agreement") is entered into as of _____, 2019, by and between the **SONOMA-MARIN AREA RAIL TRANSIT DISTRICT** (District), a public entity duly established under the laws of California, and the **COUNTY OF SONOMA** (County), a political subdivision of the State of California.

Recitals

- A. The SMART rail corridor, historically known as the Northwestern Pacific Railroad Authority (NWPRA), generally parallels Highway 101 running north-south in Sonoma and Marin Counties. The corridor is owned by the District from Milepost (MP) 68.22 in Healdsburg southward to MP 11.4 in Corte Madera.
- B. District is obligated to operate and maintain the rail corridor in accordance with applicable California Public Utilities Commission (CPUC) and Federal Railroad Administration (FRA) laws and regulations.
- C. District has completed California Environmental Quality Act (CEQA) review and is proceeding with design and construction of passenger rail service and accompanying multi use path along an approximately 70-mile existing rail corridor extending from Cloverdale in Sonoma County, California, to a location near the ferry terminal in Larkspur, Marin County, California.
- D. The County desires to upgrade the existing grade crossing protection system by adding exit gates to the system and installing pedestrian improvements at Main Street in Penngrove (MP 43.3) (the "Work").
- E. At the request of the County, the District is agreeable to constructing the improvements through its Design-Build Contract CV-DB-11-001.
- F. The list of improvements/Work is documented in Exhibit A that is incorporated and included as part of this Agreement.
- G. The County is committed to contributing to paying for the Work which a change order cost proposal has been received in the amount of \$652,470.

Agreement

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, County and District agree as follows:

1. RECITALS

- A. The above recitals are true and correct and are hereby incorporated in and expressly form a part of this Agreement.

2. COORDINATION

- A. County shall coordinate the Work with District's Chief Engineer or his designee, Contact information for the parties' respective representatives is set forth below:

District	County
Bill Gamlen	Johannes J. Hoevertsz
Chief Engineer Sonoma Marin Area Rail Transit (SMART) 5401 Old Redwood Highway, Suite 200 Petaluma, California 94954	Director of Transportation and Public Works County of Sonoma 2300 County Center Drive, Suite B100 Santa Rosa, CA 95403
Phone: 707.794.3330	Phone: 707.565.2231
Fax: 707.794.3037	Fax: 707.565.2620
Email: bgamlen@sonomamarintrain.org	Email: johannes.hoevertsz@sonoma-county.com

3. **SCOPE OF WORK**

A. Proposed Improvements/Work. District shall construct grade crossing improvements at Main Street in Penngrove. The improvements are described in detail in the plans prepared by the County and included here as Exhibit A.

B. Request for Additional Work.

1. Initiation Conference: The County may initiate a request for additional work to be covered under this Agreement. Such request shall be made in writing to SMART. The request shall include a description of the proposed work. Following receipt of the request, the parties shall meet to establish and agree on the following information:
 - a. Project Manager Information (name, address, phone number, fax number, and e-mail address).
 - b. Project Information (project name, project area, location map).
 - c. Project/task number.
 - d. Account number.
 - e. Time allowed to perform the work or Construction Schedule.
2. Agreement Memorandum. SMART will prepare an Agreement Memorandum setting forth the terms for the additional work as established during the Initiation Conference. The Agreement Memorandum will be executed by both parties prior to SMART's issuance of a written authorization to proceed.

4. **DISTRICT'S RESPONSIBILITIES**

District shall be responsible for the following:

- A. Insurance and Indemnification: District shall require its contractor to insure and indemnify the County for activities associated with the Work.
- B. Contract Administration: District shall administer the construction contract for the Work. Costs to the District of administration of the Work are reimbursable under this Agreement pursuant to Section 6 below

5. COUNTY'S RESPONSIBILITIES

County agrees to perform the following:

- A. Payment: The County shall be responsible for all costs associated with the Work which is shown in Exhibit B and any unknown or differing site condition costs which could arise as part of constructing the Work. The County shall reimburse District in accordance with Section 6 below.
- B. Final Plans, Specifications: All design required for the Work is the County's responsibility.
- C. Utilities: County shall coordinate with public and private utility companies to resolve any utility conflicts that may arise as part of constructing the Work.
- D. Right of Entry: County shall provide any required permits to the District's Contractor at no cost for the Work.
- E. Inspection: County shall be responsible for all inspection and acceptance of the Work. The County shall not direct the District's contractor.

6. REIMBURSEMENT PROCEDURES

Within 15 days of receipt of District's invoice, County shall reimburse District for the construction management, administrative and construction costs for the Work. The total reimbursement amount from County to District under this Agreement shall not exceed the total estimated costs set forth in Exhibit B plus the estimated costs for any additional work approved pursuant to Section 3B(2) without the prior written approval of County. District flagging, construction management and overhead costs for the Work are included in Exhibit B and will not exceed 10% of the total cost of construction of the Work.

7. ADDITIONAL REQUIREMENTS

- A. Amendments to Agreement

This Agreement may be amended only by the mutual written consent of both parties.

- B. Indemnification

Each party shall indemnify, defend, protect, hold harmless, and release the other, its officers, agents, and employees, from and against any and all claims, loss, proceedings, damages, causes of action, liability, costs, or expense (including attorneys' fees and witness costs) arising from or in connection with, or caused by any act, omission, or negligence of such indemnifying party in connection with the performance of this Agreement. This indemnification obligation shall not be limited in any way by any limitation of the amount or type of acts, disability benefit acts, or other employee benefit acts.

C. Termination

This Agreement shall terminate upon County's acceptance of the Work. Notwithstanding, the foregoing, either party may terminate this Agreement by giving 30-days prior written notice to the other party, in the manner described in Section 7.D of this Agreement, of its intent to terminate. In the event of termination, District shall provide County with immediate access to restore County facilities. County shall pay District for all expenses associated with the proportion of work completed as of the termination date.

D. Notice

Unless otherwise requested by a party, all notices, demands, requests, consents or other communications which may be or are required to be given by either party to the other shall be in writing and shall be deemed effective upon service. Notices shall be deemed to have been properly given when served on the party to whom the same is to be given by hand delivery or by deposit in the United States mail addressed to the party as follows:

District: Bill Gamlen, P.E.
Chief Engineer
Sonoma-Marín Area Rail Transit District
5401 Old Redwood Highway
Petaluma, CA 94954

County: Johannes J. Hoevertsz, P.E.
Director of Transportation and Public Works
County of Sonoma
2300 County Center Drive, Suite B100
Santa Rosa, CA 95403

When a notice is given by a generally recognized overnight courier service, the notice, invoice or payment shall be deemed received on the next business day. When a notice or payment is sent via United States Mail, it shall be deemed received seventy-two (72) hours after deposit in the United States Mail, registered or certified, return receipt requested, with the postage thereon fully prepaid. In all other instances, notices, and payments shall be effective upon receipt by the recipient. Changes may be made in the names and addresses of the person to whom notices are to be given by giving notice pursuant to this paragraph.

E. Governing Law

This Agreement shall be governed by and construed in accordance with the laws of the State of California.

F. Entire Agreement

This instrument contains the entire agreement between the parties, and no statement, promise, or inducement made by either party or agents of the parties that is not contained in this written contract shall be valid or binding; and this contract may not be enlarged, modified, or altered except in writing signed by the parties.

G. Authority of County and District

The undersigned hereby represent and warrant that he or she has authority to execute and deliver this Agreement on behalf of County and District.

H. No Waiver of Breach

The waiver by any of the Parties of any breach of any term or promise contained in this Agreement shall not be deemed to be a waiver of such term or provision or any subsequent breach of the same or any other term or promise contained in this Agreement.

I. Time of Essence

Time is and shall be of the essence of this Agreement and every provision hereof.

IN WITNESS WHEREOF, the District and the County have executed this Agreement as of the date first above written.

COUNTY OF SONOMA:

SONOMA-MARIN AREA RAIL TRANSIT
DISTRICT

By: _____
Johannes J. Hoevertsz
Director of Transportation and Public Works
County of Sonoma

By: _____
Farhad Mansourian
General Manager
SMART

ATTEST:

County Clerk

APPROVED AS TO FORM:

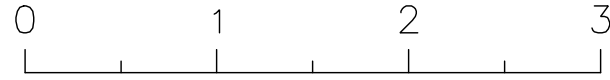
APPROVED AS TO FORM FOR DISTRICT:

By: _____
Bruce Goldstein, County Counsel

By: _____
Thomas Lyons, SMART Counsel

EXHIBIT A

Nov 08, 2018 - 8:35am

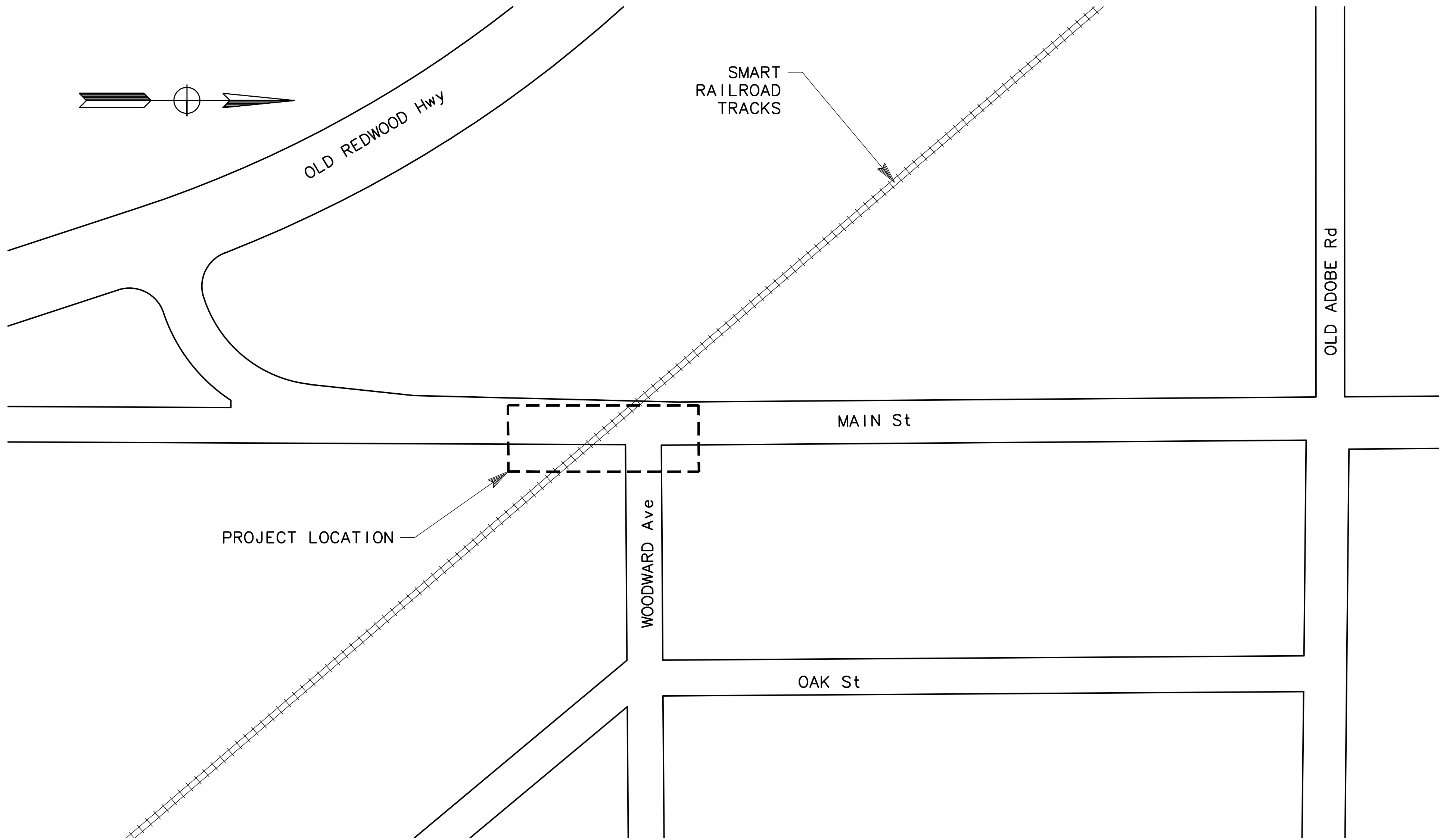


INDEX OF DRAWINGS:

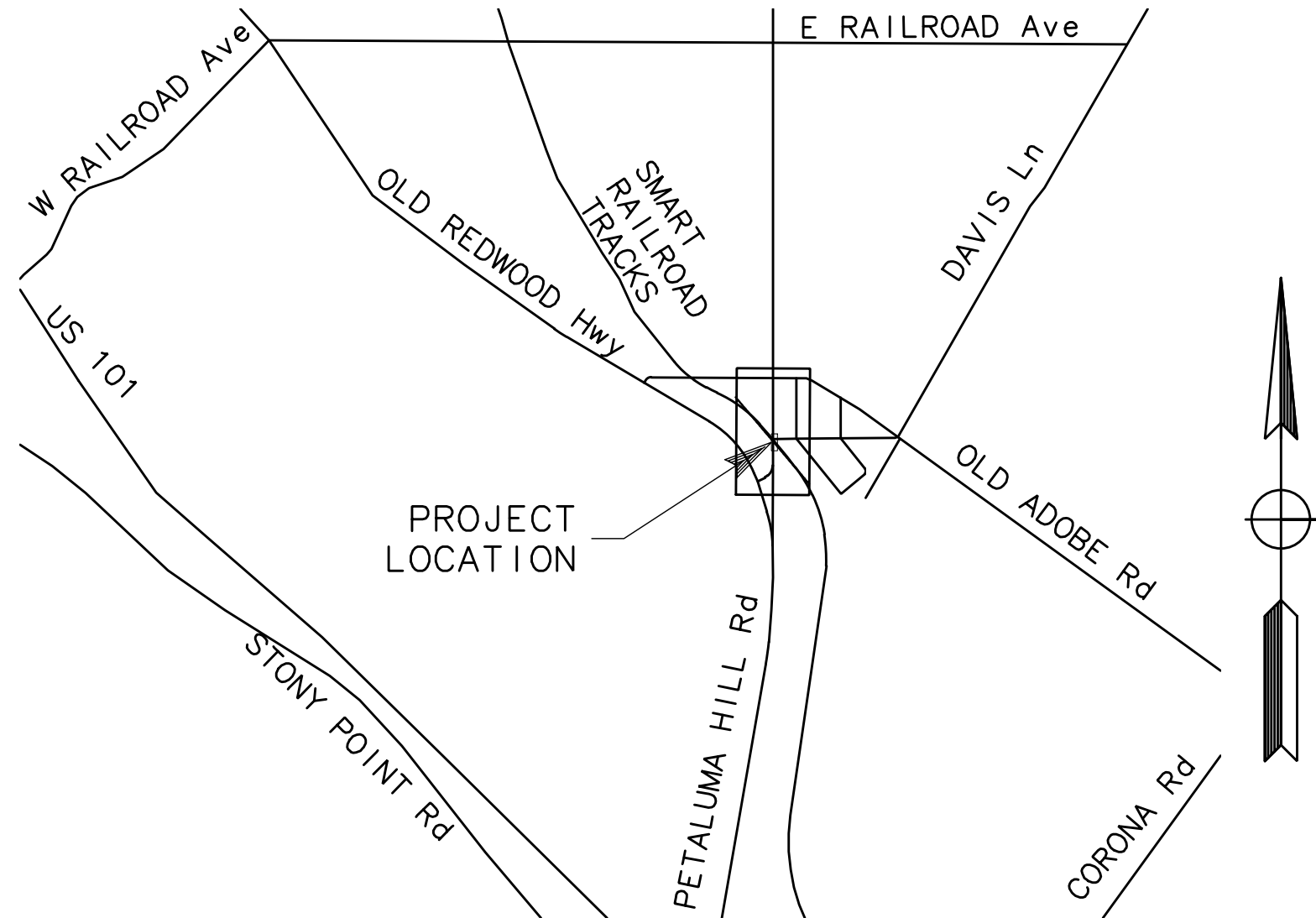
1	T-1	TITLE SHEET
2	G-1	GENERAL NOTES
3	SD-1	SURVEY CONTROL DIAGRAM
4	DM-1	DEMOLITION PLAN
5	L-1	LAYOUT
6-7	CD-1 TO CD-2	CONSTRUCTION DETAILS
8	PD-1	PAVEMENT DELINEATION PLAN
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10	CG-2	LEGEND AND NOTES
11	CG-3	SCHEMATIC CABLE PLAN
12	CG-4	SIGNAL SYSTEM SITE PLAN

SONOMA COUNTY
PENNGROVE QUAD GATE AND
PEDESTRIAN AT GRADE RAILROAD
CROSSING
PROJECT NO. xx-xxxx

100% SUBMITTAL



VICINITY MAP
NO SCALE



LOCATION MAP
NO SCALE

ABBREVIATIONS

AB	AGGREGATE BASE	Lt	LEFT
Abn	ABANDON	Max	MAXIMUM
AC	ASPHALT CONCRETE	Med	MEDIAN
Adj	ADJUST	MH	MANHOLE
AS	AGGREGATE SUBBASE	Min	MINIMUM
Ave	AVENUE	Mod	MODIFIED
BC	BEGIN HORIZONTAL CURVE	Mon	MONUMENT
Beg	BEGIN	MRM	MOUNTABLE RAISED MEDIAN
Blvd	BOULEVARD	MTC	MEDIAN TOP OF CURB
BOW	BACK OF WALK	N	NORTH/NORTHING
BFP	BACK FLOW PREVENTER	No.	NUMBER
BRT	BUS RAPID TRANSIT	OG	ORIGINAL GROUND
BT	BOTTOM ELEVATION	PCC	PORTLAND CEMENT CONCRETE/
CI	CURB INLET		POINT OF COMPOUND CURVE
CL	CENTER LINE	Per f	PERFORATED
CIR	CIRCLE	PID	PERMANENT IDENTIFIER
CI	CLASS	P/L	PROPERTY LINE
Clr	CLEARANCE	PRC	POINT OF REVERSE CURVE
Comm	COMMUNICATION	R	RADIUS
Conc	CONCRETE	RCP	REINFORCED CONCRETE PIPE
Const	CONSTRUCTION	Rd	Road
CR	CURB RAMP	Rel	RELOCATE
CRCP	CONTINUOUS REINFORCED CONCRETE PAVEMENT	Rem	REMOVE
C&G	CURB & GUTTER	Ret	RETAINING
Δ	DELTA	R/W	RIGHT OF WAY
DI	DRAINAGE INLET	Rt	RIGHT
Dia	DIAMETER	SC	SAWCUT
DR	DRIVE	SD	STORM DRAIN
Dwy	DRIVEWAY	SDMH	STORM DRAIN MANHOLE
E	EAST/EASTING	SQ.	SQUARE
EA	EACH	SS	SANITARY SEWER
EC	END HORIZONTAL CURVE	SSBM	STRAP AND SADDLE
Elev	ELEVATION		BRACKET METHOD
Elec	ELECTRICAL	SSMH	SANITARY SEWER MANHOLE
EP	EDGE OF PAVEMENT	St	STREET
ES	EDGE OF SHOULDER	Std	STANDARD
ETW	EDGE OF TRAVELED WAY	SW	SIDEWALK
Exist	EXISTING	T	TANGENT/THICKNESS
FG	FINISHED GRADE	TC	TOP OF CURB
FH	FIRE HYDRANT	TD	TOP OF DIKE
FL	FLOW LINE	Tele	TELEPHONE
FOW	FACE OF WALK	Temp	TEMPORARY
GB	GRADE BREAK	TG	TOP OF GRATE
H	HEIGHT	Typ	TYPICAL
HMA	HOT MIX ASPHALT	Var	VARIES
HP	HIGH POINT	w/	WITH
Hwy	HIGHWAY	W	WEST/WATER
INV	INVERT	WM	WATER METER
L	LENGTH	XW	CROSSWALK
LIP	LIP OF GUTTER		
Lane	LANE		
LP	LOW POINT		
LS	LANDSCAPE STRIP		

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.

Underground Service Alert

Call: TOLL FREE 1-800 642-2444

TWO WORKING DAYS BEFORE YOU DIG

Date	Revision	By

SCALE	AS NOTED
DATE	11/09/2018
JOB NO.	CC-16101
DRAWING NUMBER	

PENNGROVE QUAD GATES
MAIN STREET, PENNGROVE
SONOMA COUNTY

TITLE SHEET

MARK THOMAS

3000 OAK ROAD, SUITE 650
WALNUT CREEK, CA 94597
(925) 938-0383

REGISTERED PROFESSIONAL ENGINEER
SHAH P. O'KEEFE
NO 7792
CIVIL
STATE OF CALIFORNIA

DESIGNED BY	SO	CHECKED BY	AL	DATE	
DRAWN BY	SO				

T-1

Nov 08, 2018 -- 8:31am

GENERAL :


1. ALL WORK INDICATED SHALL BE ACCOMPLISHED USING NEW MATERIALS, UNLESS OTHERWISE NOTED.
2. OMISSIONS OR CONFLICTS BETWEEN VARIOUS ELEMENTS OF THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND RESOLVED BEFORE PROCEEDING WITH THE WORK.
3. EXISTING CONDITIONS, DIMENSIONS AND ELEVATIONS SHOWN HEREIN HAVE BEEN INFERRED FROM THE AS-BUILT DRAWINGS OF THE PREVIOUS CONSTRUCTION CONTRACTS AND LIMITED TO FIELD INVESTIGATIONS. THE CONTRACTOR SHALL VERIFY ALL EXISTING INFORMATION AND SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE COMMENCING WORK.
4. AS-BUILT DRAWINGS FROM PREVIOUS CONSTRUCTION CONTRACTS FOR THE EXISTING RAIL STATIONS AND SECONDARY STRUCTURES ARE AVAILABLE FOR REFERENCE FROM SONOMA COUNTY.
5. ALL STREET IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT SONOMA COUNTY FACILITIES STANDARDS. ALL WORK AND MATERIALS SPECIFIED AND SHOWN ON THE PLANS WITHIN SONOMA COUNTY RIGHT-OF-WAY MUST CONFORM TO SONOMA COUNTY'S MOST CURRENT STANDARDS AND SPECIFICATIONS. ALL PEDESTRIAN IMPROVEMENTS SHALL CONFORM WITH THE REQUIREMENTS OF TITLE 24 OF THE CALIFORNIA CODE OF REGULATIONS AND THE AMERICAN DISABILITIES ACT. THE IMPROVEMENTS ARE SUBJECT TO THE INSPECTION AND APPROVAL OF SONOMA COUNTY ENGINEERING DIVISION. CONTACT SONOMA COUNTY CONSTRUCTION INSPECTION AT LEAST 2 WORKING DAYS PRIOR TO THE START OF ANY WORK TO ARRANGE FOR INSPECTION.
6. ALL REVISIONS TO THIS PLAN MUST BE REVIEWED BY THE SONOMA COUNTY REPRESENTATIVE PRIOR TO CONSTRUCTION AND SHALL BE ACCURATELY SHOWN ON REVISED PLANS STAMPED AND DISTRIBUTED BY THE SONOMA COUNTY REPRESENTATIVE PRIOR TO ACCEPTANCE OF THE WORK AS COMPLETE.
7. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT, (800) 642-2444, TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION. THE USA AUTHORIZATION NUMBER SHALL BE KEPT AT THE JOB SITE.
8. CONTRACTOR SHALL PROTECT EXISTING STRUCTURES, FACILITIES, SIGNAGES, FINISHES, UTILITIES, FIXTURES, DEVICES AND EQUIPMENTS NOT DESIGNATED FOR CONSTRUCTION. CONTRACTOR SHALL REPAIR AND/OR RESTORE TO PRE-CONSTRUCTION CONDITIONS ALL ELEMENTS DAMAGED OR IMPACTED BY THE CONSTRUCTION ACTIVITIES.
9. PRIOR TO PLACING CURB, SIDEWALK, ASPHALT CONCRETE, SUB-BASE, OR BASE MATERIAL, ALL UNDERGROUND UTILITIES WITHIN THE RIGHT-OF-WAY SHALL BE INSTALLED, BACKFILL COMPLETED, AND THE SONOMA COUNTY CONSTRUCTION DIVISION NOTIFIED BY EACH OF THE UTILITY COMPANIES HAVING FACILITIES WITHIN THE WORK AREA THAT THE UTILITY INSTALLATION HAS SATISFACTORILY PASSED ACCEPTANCE TESTS.
10. WHEN WIDENING THE PAVEMENT ON AN EXISTING ROAD, THE EXISTING PAVEMENT SHALL BE CUT TO A NEAT LINE AND REMOVED TO AN EXISTING ADEQUATE STRUCTURAL SECTION, OR TO THE ORIGINAL ROAD SECTION. AN EXPLORATORY TRENCH, OR POTHOLING, MAY BE REQUIRED TO DETERMINE THE LIMITS OF PAVEMENT REMOVAL.
11. SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
12. ALL TREES WITHIN PROJECT LIMITS IN CONFLICT WITH IMPROVEMENTS SHALL BE REMOVED. TREES NOT WITHIN PROJECT LIMITS SHALL REMAIN UNLESS OTHERWISE NOTED. IF ANY TREES ARE TO BE REMOVED, THE PLANS MUST BE REVIEWED AND ACKNOWLEDGED BY THE SONOMA COUNTY LANDSCAPE DEPARTMENT. ALL TREES CONFLICTING WITH GRADING, UTILITIES, OR OTHER IMPROVEMENTS, OR OVERHANGING THE SIDEWALK OR PAVEMENT SO AS TO FORM A NUISANCE OR HAZARD, SHALL BE TRIMMED, PROPERLY TREATED AND SEALED.

13. BEFORE COMMENCING WORK AT THE JOB SITE, THE CONTRACTOR SHALL SUBMIT WORK PLANS. FURTHERMORE, FOR WORK THAT MAY AFFECT THE SONOMA COUNTY OPERATING SYSTEM, THE CONTRACTOR SHALL SUBMIT A SITE SPECIFIC WORK PLAN. ITEMS THAT ARE REQUIRED TO BE TEMPORARILY RELOCATED PRIOR TO CONSTRUCTION AND REINSTALLED AFTER CONSTRUCTION ARE NOT SHOWN IN THE CONTRACT DOCUMENTS. CONTRACTOR IS REQUIRED TO INCLUDE THESE ITEMS IN ITS CONSTRUCTION WORK PLANS AND SUBMIT TO SONOMA COUNTY FOR APPROVAL PRIOR TO CONSTRUCTION.
14. PRIOR TO ANY FABRICATION OR INSTALLATION OF "NEW WORK", RELOCATION OF EXISTING STRUCTURES, SIGNAGES, FACILITIES, UTILITIES AND EQUIPMENT, THE CONTRACTOR SHALL PERFORM A COMPREHENSIVE SURVEY TO VERIFY EXISTING INFORMATION AT THE JOB SITE.
15. TEMPORARY SILT AND DRAINAGE CONTROL FACILITIES SHALL BE INSTALLED TO CONTROL AND CONTAIN EROSION-CAUSED SILT DEPOSITS AND TO PROVIDE FOR THE SAFE DISCHARGE OF STORM WATERS INTO EXISTING STORM WATER FACILITIES. DESIGN OF THESE FACILITIES MUST BE APPROVED BY SONOMA COUNTY AND IN IN PLACE PRIOR TO THE START OF GRADING.
16. ALL TRAFFIC STRIPING AND MARKINGS SHALL BE THERMOPLASTIC UNLESS THE PLANS DESIGNATE THE USE OF "TRAFFIC PAINT".
17. ALL STRIPING ON MAJOR ROADS SHALL BE CAT-TRACKED PRIOR TO FINAL INSTALLATION. FINAL INSTALLATION OF STRIPING WILL BE ALLOWED ONLY AFTER APPROVAL OF THE STRIPING LAYOUT BY THE ENGINEER.
18. THE CONTRACTOR IS RESPONSIBLE FOR PRESERVATION AND/OR PERPETUATION OF ALL EXISTING MONUMENTS, WHICH CONTROL SUBDIVISIONS, TRACTS, STREETS, OR HIGHWAYS, OR PROVIDE SURVEY CONTROL, WHICH WILL BE DISTURBED OR REMOVED DUE TO CONTRACTORS' WORK. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF TEN (10) WORKING DAYS NOTICE TO PROJECT ENGINEER/SURVEY OR PRIOR TO DISTURBANCE OR REMOVAL OF EXISTING MONUMENTS. PROJECT ENGINEER/SURVEYOR SHALL COORDINATE WITH THE CONTRACTOR TO RESET MONUMENTS OR PROVIDE PERMANENT WITNESS MONUMENTS AND FILE THE REQUIRED DOCUMENTATION WITH THE COUNTY SURVEYOR PER BUSINESS AND PROFESSIONS CODE SECTION 8771.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE SECURITY OF THE JOB SITE. WHERE EXISTING SECURITY BARRIERS, INCLUDING RAILINGS, GRILLES, FENCES, GATES OR WALLS ARE REMOVED OR BECOME INOPERATIVE DUE TO CONTRACTOR'S OPERATIONS, TEMPORARY PROVISIONS SIMILAR/EQUIVALENT TO THE EXISTING SECURITY PROVISIONS SHALL BE MADE, AS APPROVED BY THE ENGINEER.
20. OBSTRUCTIONS INDICATED ARE FOR INFORMATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND DEPTH OF ALL OBSTRUCTIONS WITH THE APPROPRIATE AGENCY. NEITHER THE OWNER NOR THE ENGINEER ASSUMES RESPONSIBILITY THAT THE OBSTRUCTIONS INDICATED WILL BE THE OBSTRUCTIONS ENCOUNTERED. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (800) 642-2444 TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION.
21. CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGMEN AND OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY. SHOULD THE CONTRACTOR FAIL TO PROVIDE THE NECESSARY SAFETY DEVICES, AND THEY ARE PROVIDED BY SONOMA COUNTY THE CONTRACTOR SHALL PAY SONOMA COUNTY TIME AND MATERIAL COSTS FOR PROVIDING.
22. IF ARCHAEOLOGICAL MATERIALS ARE UNCOVERED DURING GRADING, TRENCHING, OR OTHER EXCAVATION; EARTHWORK WITHIN 100 FEET OF THESE MATERIALS SHALL BE STOPPED UNTIL A PROFESSIONAL ARCHAEOLOGIST WHO IS CERTIFIED BY THE SOCIETY OF CALIFORNIA ARCHAEOLOGY (SCA) AND/OR THE SOCIETY OF PROFESSIONAL ARCHAEOLOGY (SOPA) HAS HAD AN OPPORTUNITY TO EVALUATE THE SIGNIFICANCE OF THE FIND AND SUGGEST APPROPRIATE MITIGATION MEASURES, IF THEY ARE DEEMED NECESSARY.
23. CONTRACTOR SHALL PROVIDE FOR INGRESS AND EGRESS TO PRIVATE PROPERTY ADJACENT TO WORK THROUGHOUT THE PERIOD OF CONSTRUCTION.

24. CONTRACTOR SHALL PROVIDE AND MAINTAIN ADEQUATE SANITARY FACILITIES (PUBLIC AND SONOMA COUNTY COMPLIANT) AT THE SITE DURING ALL PHASES OF CONSTRUCTION.
25. NO WORK SHALL BE PERFORMED WITHOUT INSPECTION BY SONOMA COUNTY. IF ANY WORK THAT REQUIRES INSPECTION MUST BE PERFORMED OUTSIDE OF NORMAL WORKING HOURS, CONTRACTOR SHALL SUBMIT A WRITTEN REQUEST FOR INSPECTION SERVICES TO THE SONOMA COUNTY REPRESENTATIVE 2 WORKING DAYS IN ADVANCE OF THE TIME SUCH SERVICES WILL BE REQUIRED.
26. SILT AND EROSION CONTROL PLANS ARE REQUIRED FOR WORK YEAR-ROUND. SEDIMENT CONTROL BMP'S SHALL BE IMPLEMENTED YEAR-ROUND.
27. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS AND CONDITIONS BEFORE ORDERING AND FABRICATING ALL MATERIALS.
28. CONTRACTOR SHALL COORDINATE THESE DRAWINGS, DRAWINGS FROM OTHER DISCIPLINES, AND SONOMA COUNTY STANDARDS AND PREPARE SHOP DRAWINGS FOR ALL CONCRETE WORK. THIS INCLUDES JOINT LOCATIONS AND TYPES, REINFORCING BAR LAYOUT AND FABRICATION DETAILS AND ALL OTHER MISCELLANEOUS FABRICATION DETAILS. CONTRACTOR SHALL SUBMIT THESE SHOP DRAWINGS TO THE ENGINEER FOR REVIEW AND APPROVAL BEFORE PURCHASE OR FABRICATION.
29. PRIOR TO PERFORMING WORK WITHIN 10 FEET OF SONOMA COUNTY'S RIGHT-OF-WAY, CONTRACTOR SHALL OBTAIN SONOMA COUNTY PERMITS, INCLUDING RESTRICTED ACCESS PERMIT (RAP) AND CONSTRUCTION ACCESS PERMIT (CAP) AS REQUIRED. CONTRACTOR TO COMPLY WITH RAP AND CAP REQUIREMENTS, INCLUDING FEES, TRAINING, AND BACKGROUND SECURITY CHECKS.

EARTHWORK SUMMARY				
LOCATION	VOLUME (CY)			
	EXCAVATION	EMBANKMENT	EXPORT	NET
"M" 5+03.00 -- 5+50.00	3	18	0	15
"M" 5+50.00 -- 6+08.45	5	5	0	0
TOTAL	8	23	0	15

G -1

<div>NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE. Underground Service Alert Call: TOLL FREE 1-800 642-2444  TWO WORKING DAYS BEFORE YOU DIG</div>	Date	Revision	By	SCALE NO SCALE
				DATE 11/09/2018
				JOB NO. CC-16101
				DRAWING NUMBER
				2 OF 12

FOR REDUCED PLANS, THE ORIGINAL SCALE IS IN INCHES

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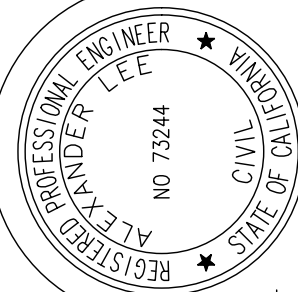
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2

3

PENNGROVE QUAD GATES
MAIN STREET, PENNGROVE
SONOMA COUNTY

GENERAL NOTES



DESIGNED BY SO	CHECKED BY AL	DATE
-------------------	------------------	------

MARK THOMAS
3000 OAK ROAD, SUITE 650
WALNUT CREEK, CA 94597
(925) 938-0383

NOTE:

1. CONTRACTOR SHALL COMPLY WITH CALIFORNIA BUSINESS AND PROFESSIONS CODE SECTION 8771 (b) REGARDING REFERENCING, PRESERVING, AND RECONSTRUCTING MONUMENTS, WHETHER OR NOT MONUMENTS ARE SHOWN IN THESE PLANS.
2. ALL REFERENCES TO UTILITIES, IMPROVEMENTS, STRUCTURES, BUILDINGS, PARKING, EASEMENTS, SERVITUDES, AND ENCROACHMENTS: ARE BASED SOLELY ON ABOVE GROUND, VISIBLE EVIDENCE, UNLESS ANOTHER SOURCE OF INFORMATION IS SPECIFICALLY REFERENCED HEREON.
3. THE RIGHT-OF-WAY SHOWN HEREON IS A PRODUCT OF RECORD MAPS ROTATED ON TO FOUND MONUMENTS, AND SHOULD NOT BE RELIED UPON AS DEFINITIVE. THE FIELD SURVEY WAS RESTRICTED TO MONUMENTS THAT WOULD ORIENT RECORD DATA. THESE LINES MAY CHANGE UPON COMPLETION OF A BOUNDARY SURVEY.
4. PROPERTY LINES SHOWN HEREON ARE A GIS PRODUCT AND ARE PRELIMINARY IN NATURE, BASED UPON PUBLICLY AVAILABLE RECORDS. THEY SHOULD NOT BE RELIED UPON AS DEFINITIVE AND DO NOT REPRESENT A BOUNDARY SURVEY.

LEGEND:

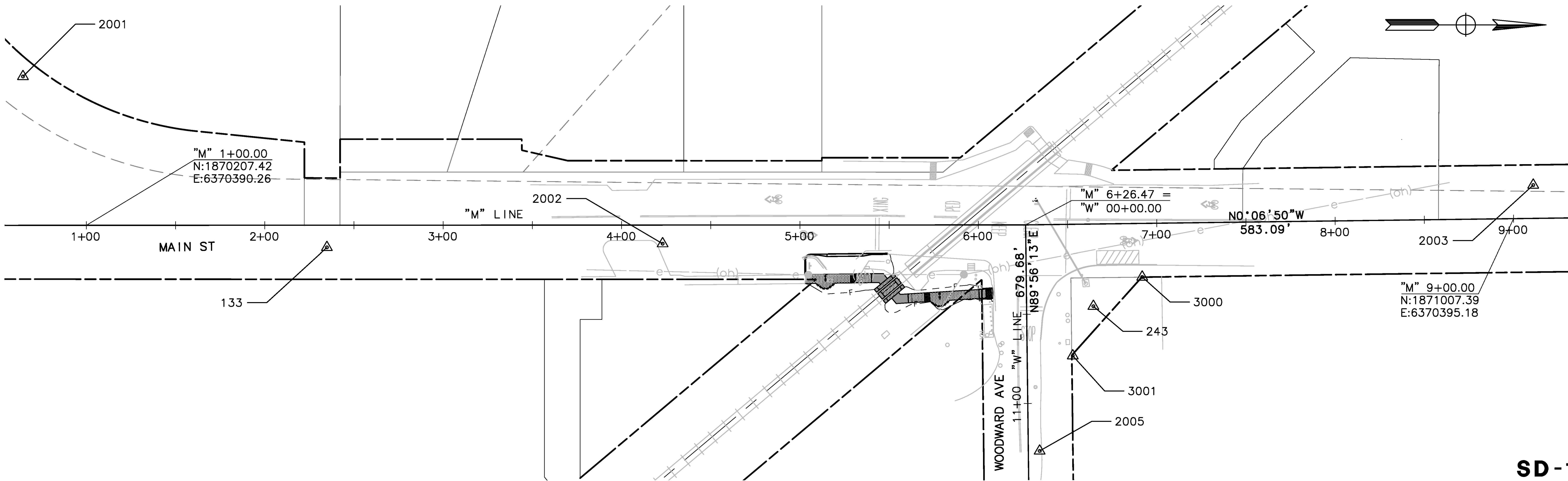
△ CONTROL POINT

BASIS OF BEARINGS:

CALIFORNIA COORDINATE SYSTEM, CCS83, EPOCH 2009.00 AS SHOWN ON RECORD OF SURVEY OF THE SMART PROJECT CONTROL IN BOOK 741 OF MAPS AT PAGES 1-24.

CONTROL POINTS				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
133	1870345.83	6370416.83	67.75	PENNGROVE
242	1870115.19	6370348.46	67.87	SMART 242
243	1870775.10	6370454.36	77.81	SMART 243
286	1942917.67	6341237.24	138.03	SMART 286
287	1943627.79	6341325.41	137.81	SMART 287

CONTROL POINTS				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
2001	1870176.50	6370319.18	67.65	PID #1
2002	1870534.03	6370416.78	68.44	PID #2
2003	1871022.36	6370389.21	88.81	PID #3
2004	1871479.78	6370388.10	86.51	PID #4
2005	1870744.10	6370535.13	81.74	PID #5
2011	1942250.33	6341298.65	138.84	PID #1 MAG
2012	1942678.85	6341119.82	135.11	PID #2 MAG
2013	1942623.74	6341290.67	137.37	PID #3 MAG
2014	1942957.52	6341330.69	137.48	PID #4 MAG
2015	1943101.52	6341245.78	137.85	PID #5 MAG
3000	1870802.63	6370438.24	78.36	SVIP-FND
3001	1870763.23	6370481.98	78.34	SVIP-FND
3002	1870655.05	6370819.02	97.42	SVRB-FND
3003	1870739.58	6371462.78	98.14	SVMO-FND
3004	1869255.72	6370509.72	71.24	SVMO-FND



NO SCALE

SD-1

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.

Underground Service Alert

Call: TOLL FREE 1-800 642-2444

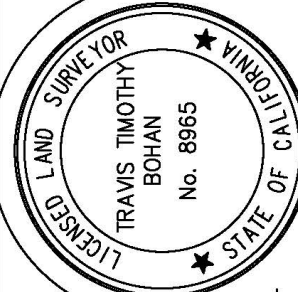
TWO WORKING DAYS BEFORE YOU DIG

Date	Revision	By

SCALE 1" = 50'
DATE 11/09/2018
JOB NO. CC-16101
DRAWING NUMBER 3 OF 12

PENNGROVE QUAD GATES
MAIN STREET, PENNGROVE
SONOMA COUNTY

SURVEY CONTROL DIAGRAM



DESIGNED BY SQ
CHECKED BY AL
DRAWN BY SQ
DATE

MARK THOMAS
3000 OAK ROAD, SUITE 650
WALNUT CREEK, CA 94597
(925) 938-0383

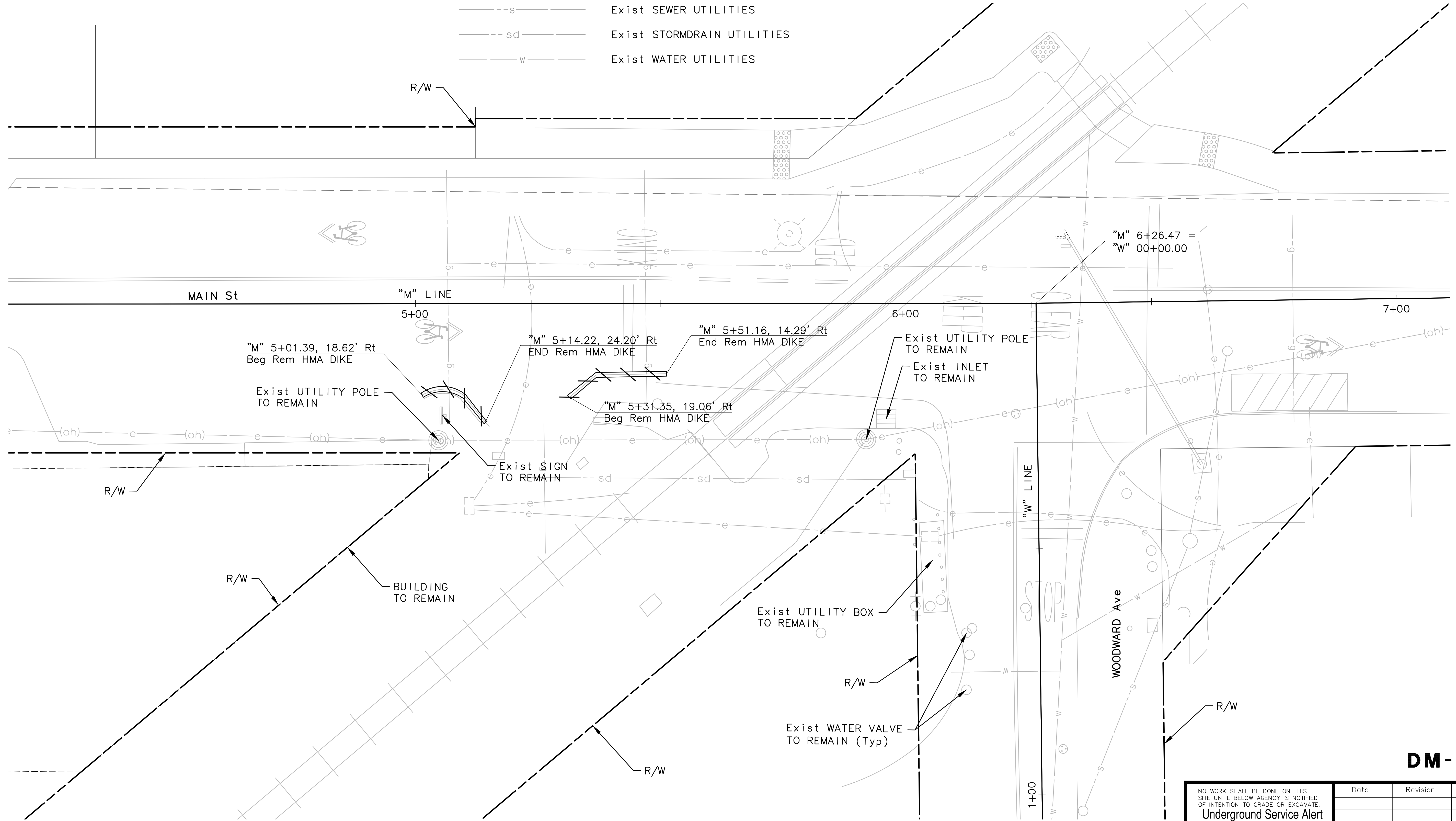
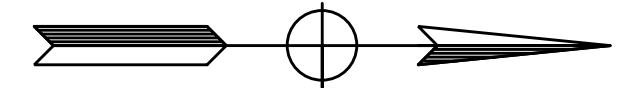


NOTES:

1. ALL DISTANCES SHOWN ARE APPROXIMATE. VERIFY MEASUREMENTS IN FIELD.
2. FOR ABBREVIATIONS, SEE SHEET T-1.
3. CONTRACTOR SHALL POSITIVELY IDENTIFY AND LOCATE ALL UTILITIES BEFORE ANY DEMOLITION WORK.

LEGEND:

- HMA DIKE TO BE REMOVED
- Exist OVERHEAD ELECTRICAL UTILITIES
- Exist ELECTRICAL UTILITIES
- Exist NATURAL GAS UTILITIES
- Exist SEWER UTILITIES
- Exist STORMDRAIN UTILITIES
- Exist WATER UTILITIES



DM-1

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.

Underground Service Alert

Call: TOLL FREE 1-800 642-2444

TWO WORKING DAYS BEFORE YOU DIG

Date	Revision	By

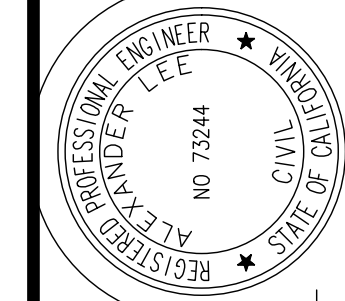
SCALE 1" = 10'
DATE 11/09/2018
JOB NO. CC-16101
DRAWING NUMBER

Nov 08, 2018 - 8:29am



PENNGROVE QUAD GATES
MAIN STREET, PENNGROVE
SONOMA COUNTY

DEMOLITION PLAN



DESIGNED BY SQ
CHECKED BY AL
DRAWN BY SQ
DATE

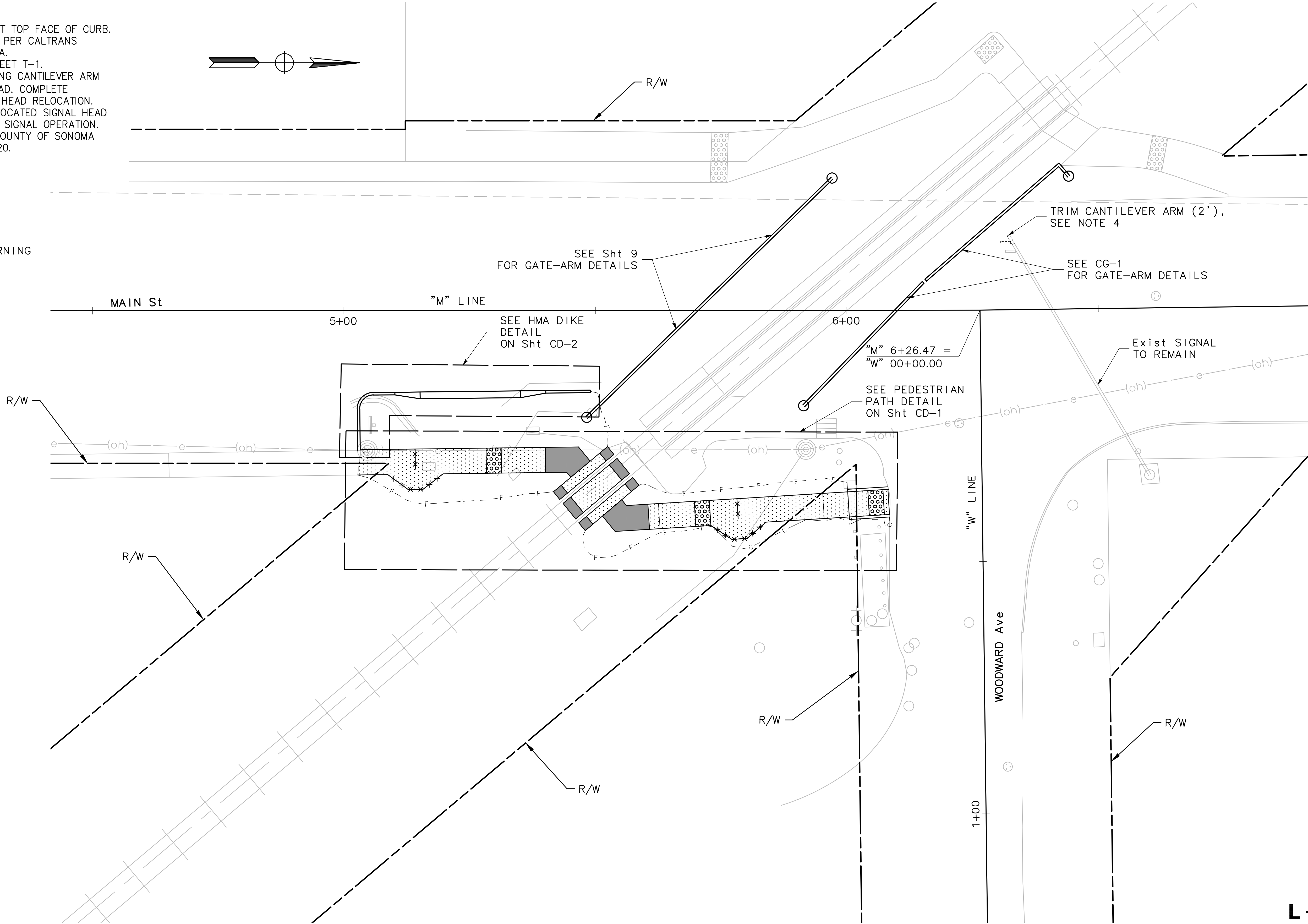
MARK THOMAS
3000 OAK ROAD, SUITE 650
WALNUT CREEK, CA 94597
(925) 938-0383

NOTES:

1. ALL CURB LOCATIONS ARE AT TOP FACE OF CURB.
2. CURB RAMPS SPECIFIED ARE PER CALTRANS STANDARD PLANS RSP A88A.
3. FOR ABBREVIATIONS, SEE SHEET T-1.
4. CONTRACTOR TO TRIM EXISTING CANTILEVER ARM BY 2'. RELOCATE SIGNAL HEAD. COMPLETE REWIRING WORK FOR SIGNAL HEAD RELOCATION. CONTRACTOR TO REWIRE RELOCATED SIGNAL HEAD AS NECESSARY FOR PROPER SIGNAL OPERATION.
5. FOR SIDEWALK DETAIL SEE COUNTY OF SONOMA CONSTRUCTION STANDARD 220.

LEGEND:

- CONCRETE SW
- DETECTABLE WARNING SURFACE
- HMA
- F--- LIMIT OF FILL
- C--- LIMIT OF CUT
- ***** FENCE (3')



L-1

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.

Underground Service Alert

Call: TOLL FREE 1-800 642-2444

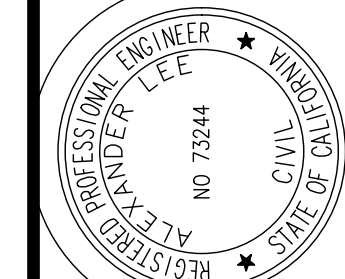
TWO WORKING DAYS BEFORE YOU DIG

Date	Revision	By

SCALE 1" = 10'
DATE 11/09/2018
JOB NO. CC-16101
DRAWING NUMBER
5 OF 12

PENNGROVE QUAD GATES
MAIN STREET, PENNGROVE
SONOMA COUNTY

LAYOUT






DESIGNED BY SQ
CHECKED BY AL
DRAWN BY SQ
DATE

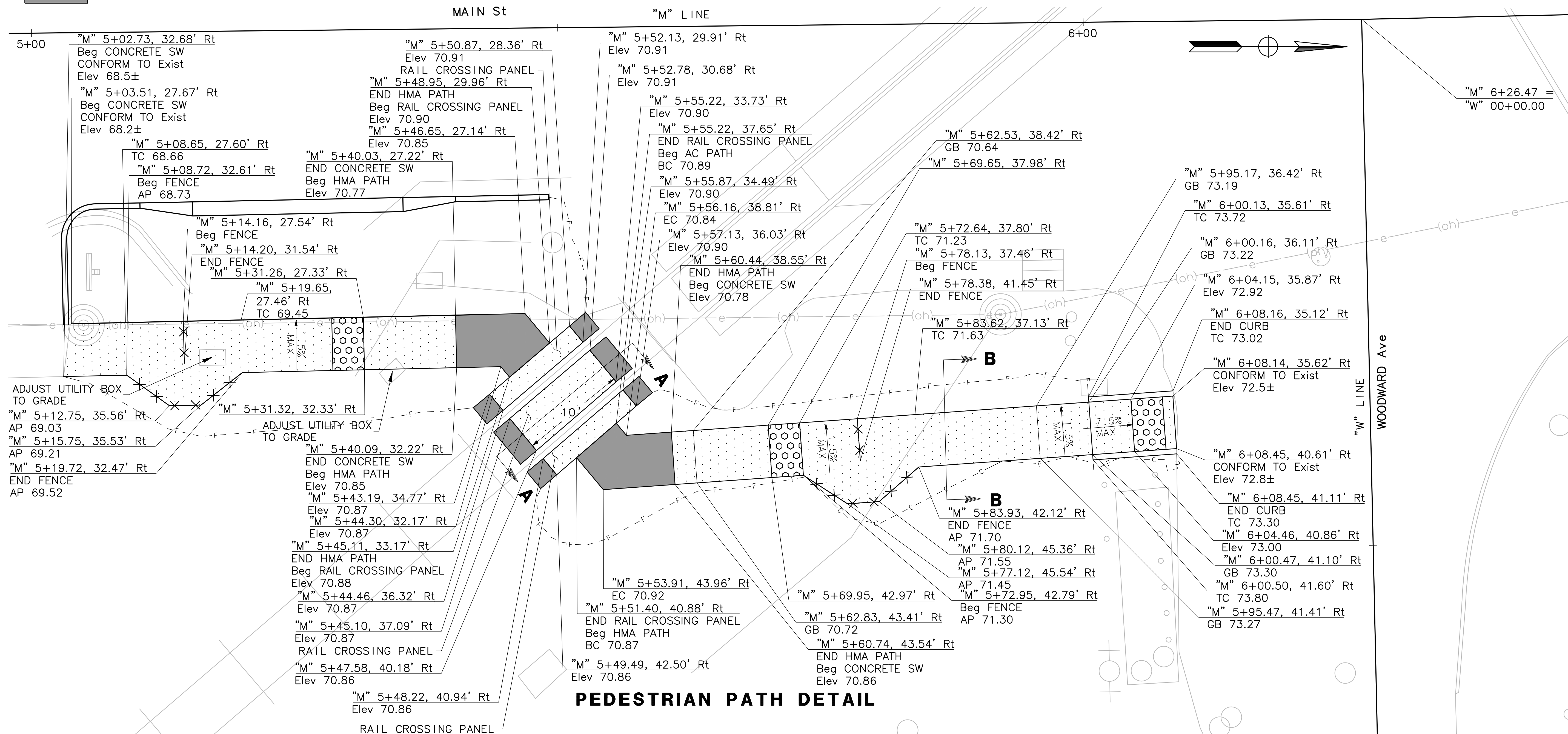
MARK THOMAS
3000 OAK ROAD, SUITE 650
WALNUT CREEK, CA 94597
(925) 938-0383

REGISTERED PROFESSIONAL ENGINEER
AL ALEXANDER LEE
NO. 73244
CIVIL
STATE OF CALIFORNIA

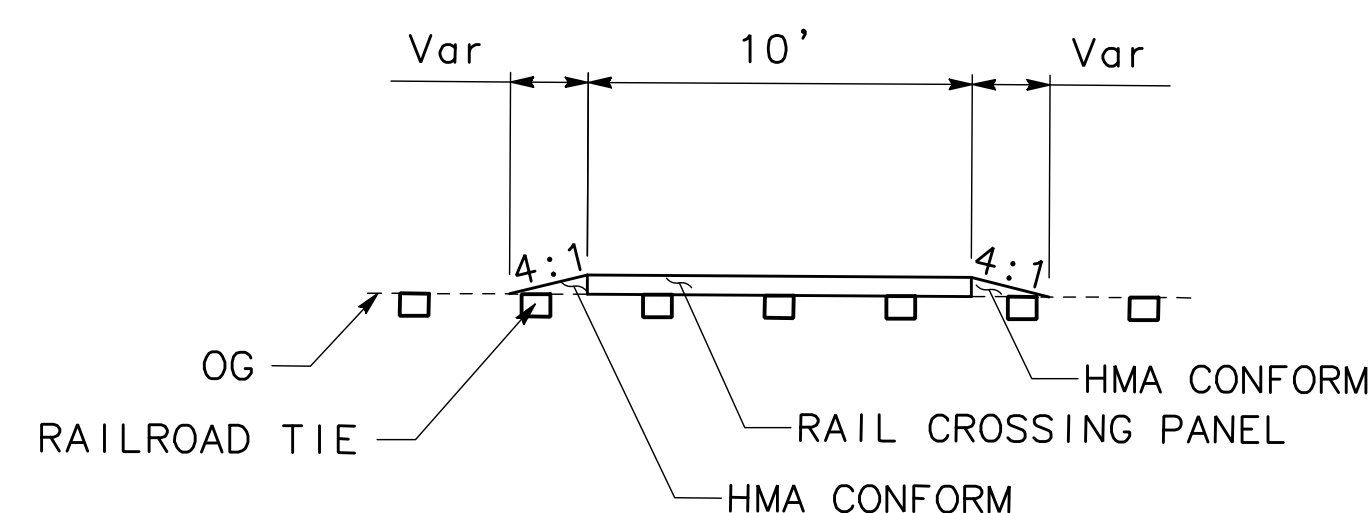
Nov 08, 2018 - 10:06am

	CONCRETE SW
	DETECTABLE WARNING SURFACE
	HMA

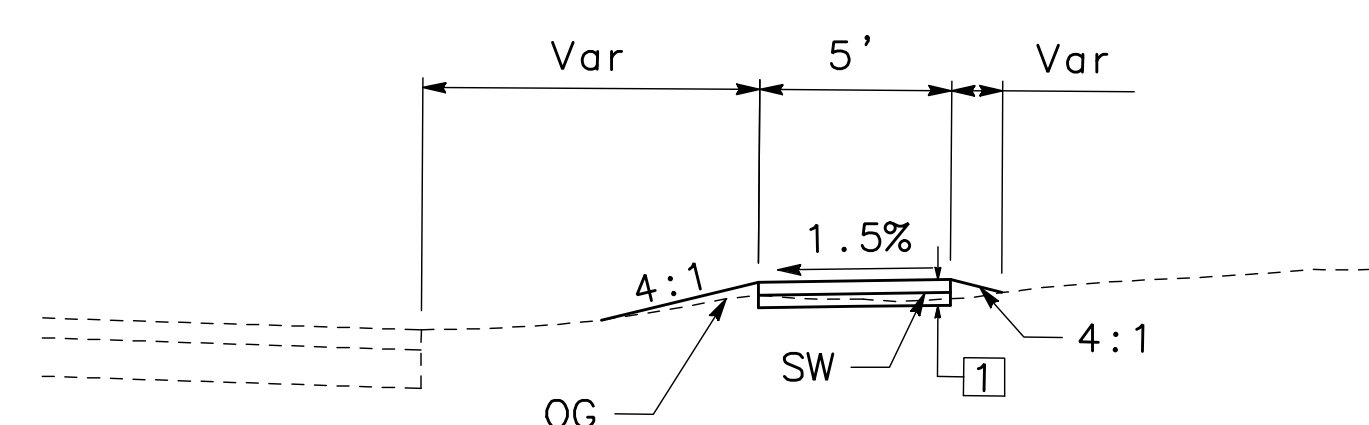
1 — 4" PCC
4" CI 2 AB



PEDESTRIAN PATH DETAIL



SECTION A-A
NO SCALE



SECTION B-B
NO SCALE

CD-1

NO WORK SHALL BE DONE ON THIS
SITE UNTIL BELOW AGENCY IS NOTIFIED
OF INTENTION TO GRADE OR EXCAVATE.

Underground Service Alert



Call: TOLL FREE

1-800

642-2444

TWO WORKING DAYS BEFORE YOU DIG

[illegible]


SCALE	1" = 5'
DATE	11/09/2018
JOB NO.	CC-16101
DRAWING NUMBER	6 OF 12

PENNGROVE QUAD GATES
MAIN STREET, PENNGROVE
COUNTY, TEXAS

CONSTRUCTION DETAILS

DESIGNED BY  DRAWN BY

SQ
 CHECKED BY
 AL
 REGISTERED PROFESSIONAL ENGINEER
 ALEXANDER LEE
 NO. 27044
 SQ



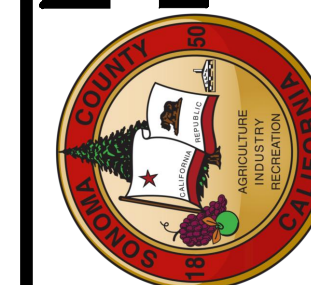
DRAWN BY

50

DATE _____

ENGINEER B C E NIO 73244

MARK
THOMAS
 3000 OAK ROAD, SUITE 650
 WALNUT CREEK, CA 94597
 (925) 938-0383

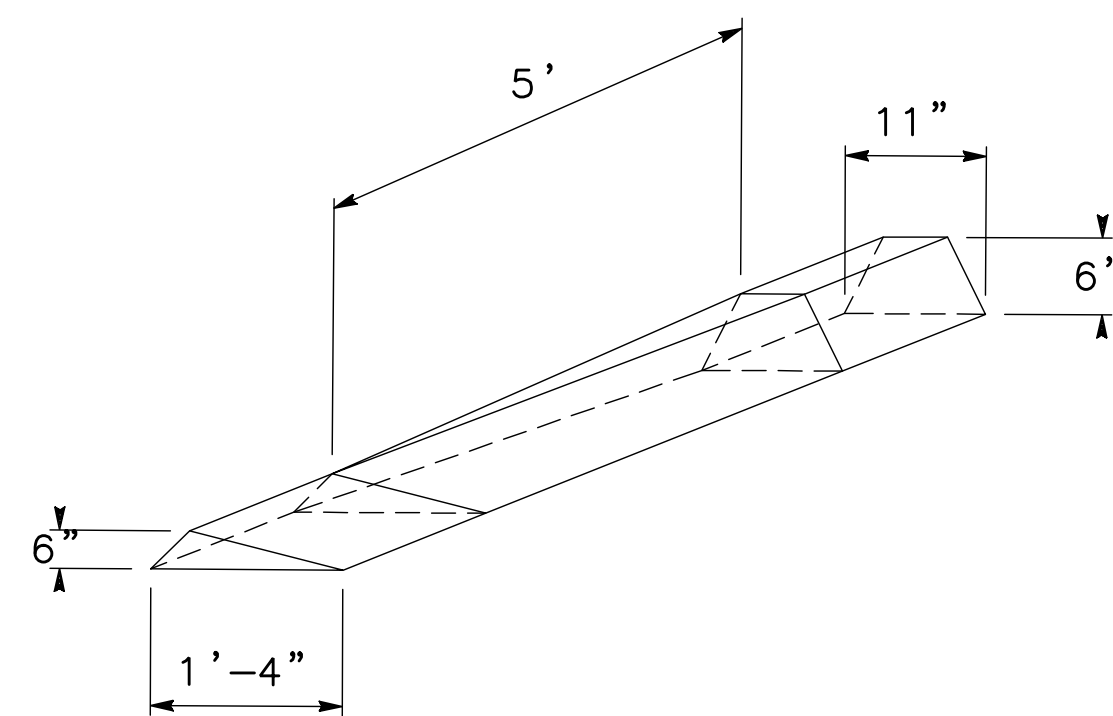
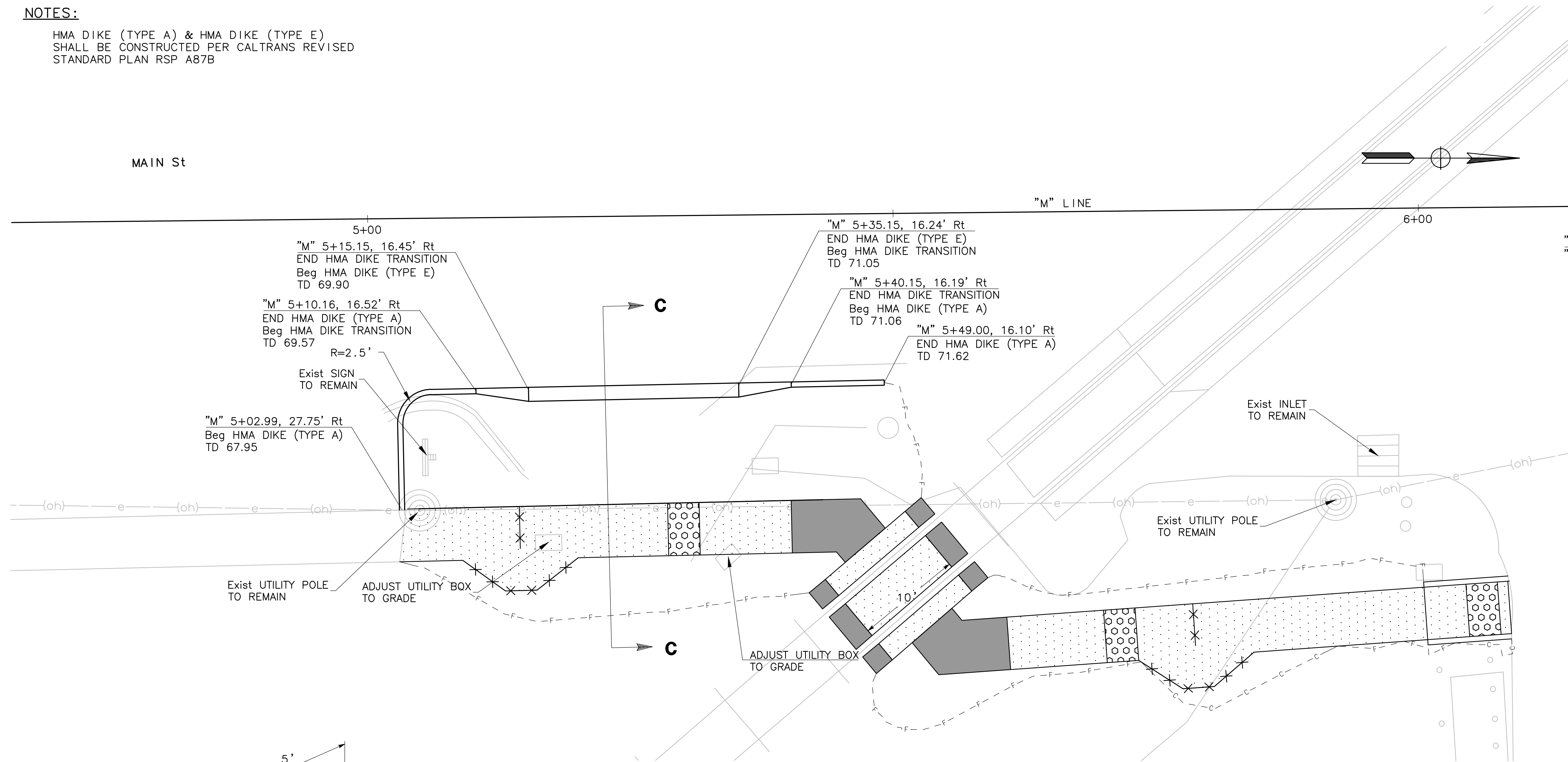


2



NOTES:

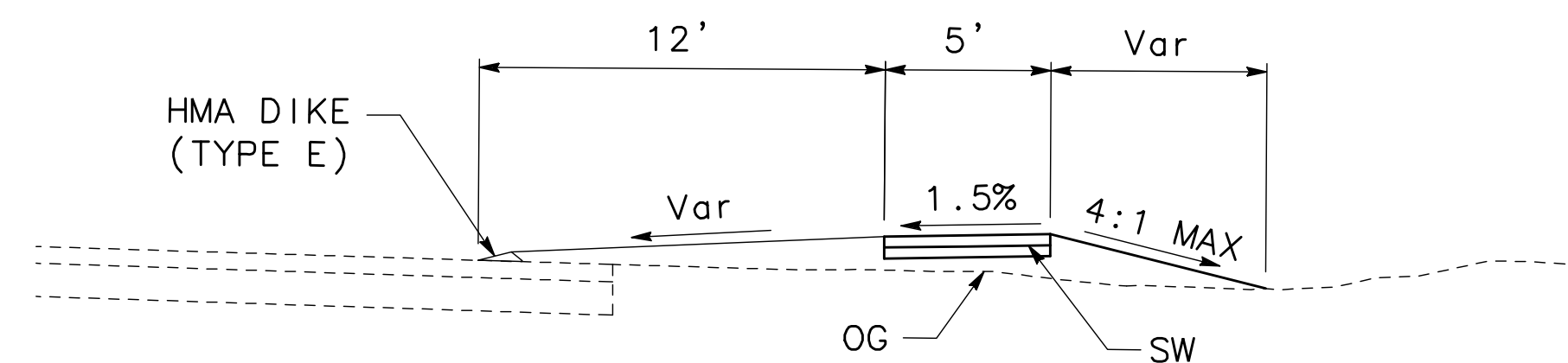
HMA DIKE (TYPE A) & HMA DIKE (TYPE E)
SHALL BE CONSTRUCTED PER CALTRANS REVISED
STANDARD PLAN RSP A87B



**HMA DIKE TRANSITION DETAIL
(TYPE E/TYPE A)**

NO SCALE

HMA DIKE DETAIL



SECTION C-C

NO SCALE

CD-2

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.

Underground Service Alert

Call: TOLL FREE
1-800
642-2444

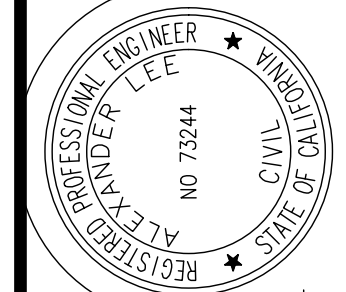
TWO WORKING DAYS BEFORE YOU DIG

Date	Revision	By

SCALE, 1" = 5'
DATE 11/09/2018
JOB NO. CC-16101
DRAWING NUMBER 7 OF 12

PENNGROVE QUAD GATES
MAIN STREET, PENNGROVE
SONOMA COUNTY

CONSTRUCTION DETAILS



DESIGNED BY
SQ

CHECKED BY
AL

DRAWN BY
SQ

MARK THOMAS
3000 OAK ROAD, SUITE 650
WALNUT CREEK, CA 94597
(925) 938-0383



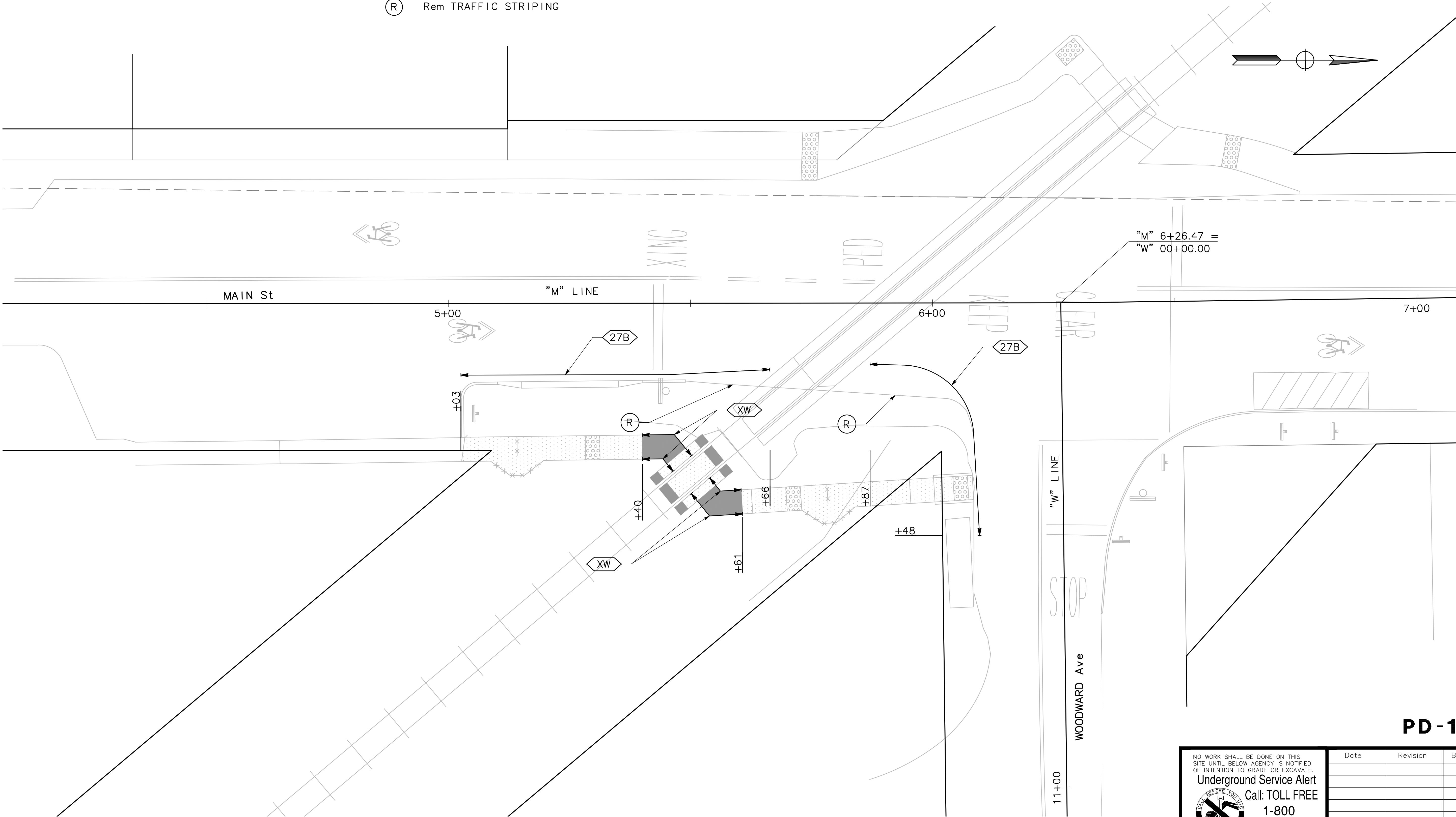
Nov 08, 2018 - 8:55am

NOTES:

- 1. ALL SIGNS SHALL REMAIN DURING CONSTRUCTION UNLESS OTHERWISE NOTED.
- 2. THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING MATERIALS.
- 3. ALL SIGN CODES ARE FEDERAL SIGN CODES UNLESS OTHERWISE DESIGNATED AS CALIFORNIA SIGN CODES.

LEGEND:

- EXISTING ROADSIDE SIGN (ONE POST)
- EXISTING SSBM SIGN
- PAVEMENT DELINEATION DETAIL
- CROSSWALK AND LIMIT LINE PER CALTRANS Std PLANS A24E
- Rem TRAFFIC STRIPING



PD-1

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.

Underground Service Alert

Call: TOLL FREE 1-800 642-2444

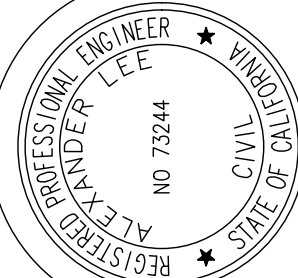
TWO WORKING DAYS BEFORE YOU DIG

Date	Revision	By

SCALE 1" = 10'
DATE 11/09/2018
JOB NO. CC-16101
DRAWING NUMBER 8 OF 12

PENNGROVE QUAD GATES
MAIN STREET, PENNGROVE
SONOMA COUNTY

PAVEMENT DELINEATION PLAN

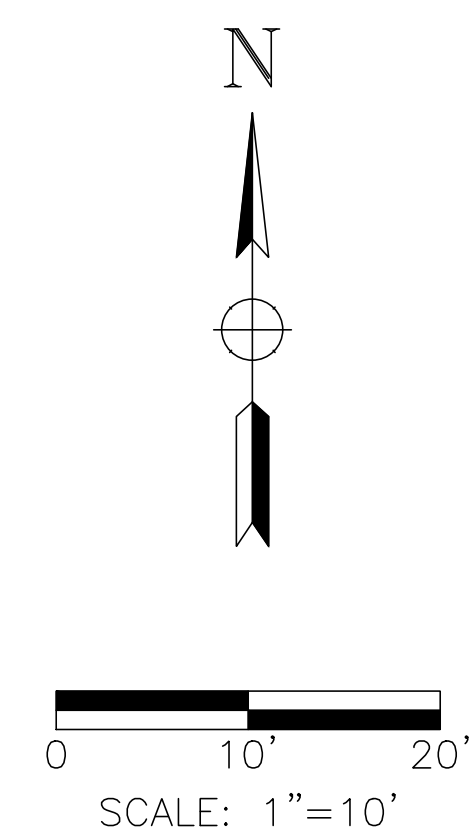
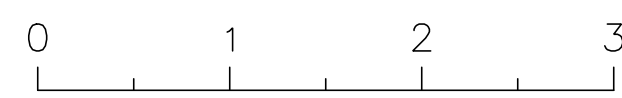
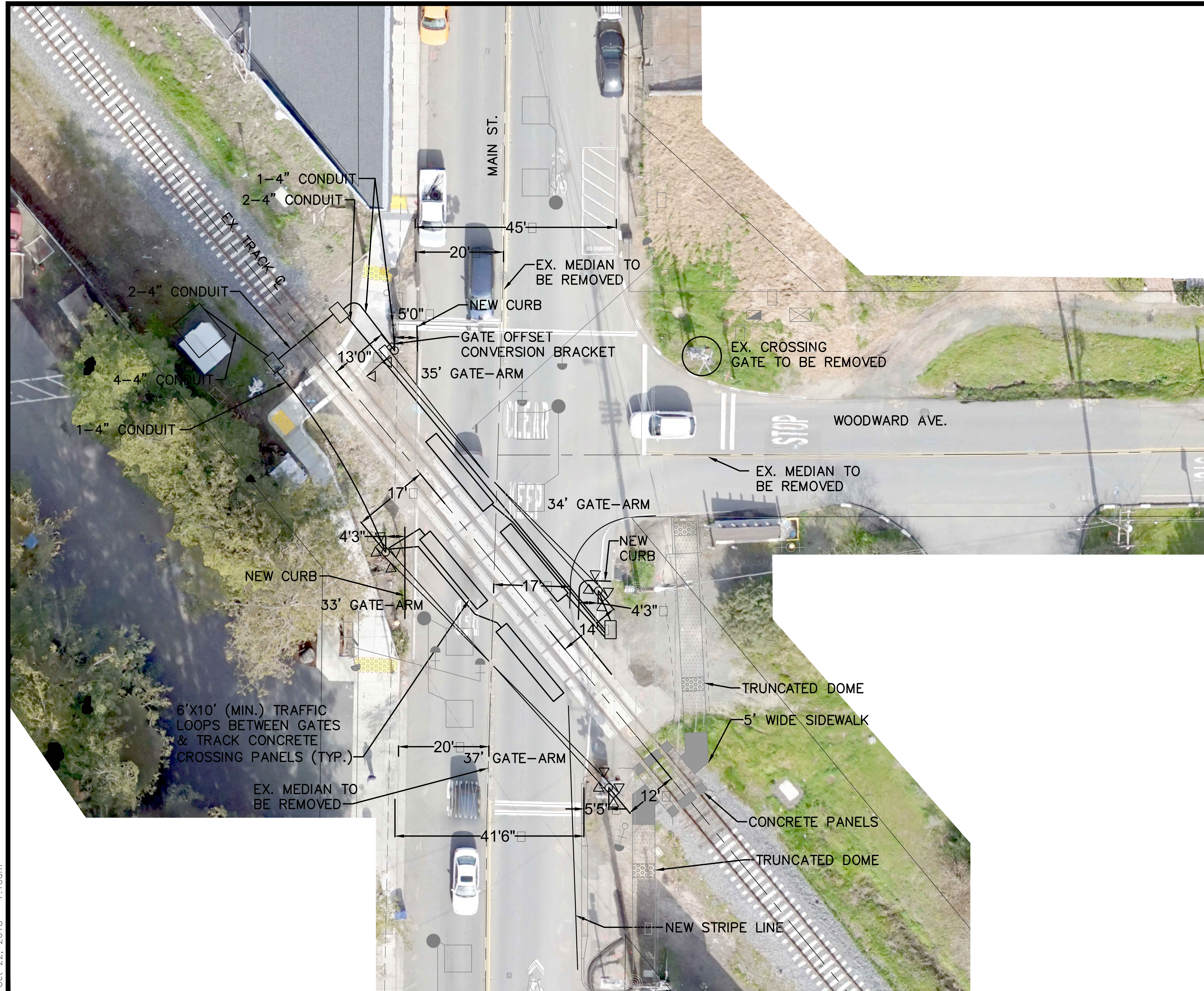


DESIGNED BY SQ
CHECKED BY AL
DRAWN BY SQ
DATE

MARK THOMAS

3000 OAK ROAD, SUITE 650
WALNUT CREEK, CA 94597
(925) 938-0383

Oct 22, 2018 - 7:10am



Date	Revision	By

MAIN ST. PENN GROVE, CA		DESIGNED BY SL
SITE PLAN		CHECKED BY MC
SCALE: 1"=10'		ENGINEER, R.C.E. NO. E17500
DATE: 10/12/18		
JOB NO. XXXX		
DRAWING NUMBER		
9 OF 12		



Oct 22, 2018 - 7:10am



LEGEND			
	WAYSIDE SIGNAL (3 ASPECT)		CROSSING GATE
	ELECTRIC LOCK		CROSSING CANTILEVER
	ELECTRIC LOCK WITH CIRCUIT CONTROLLER		CROSSING FLASHER
	DERAIL		FLASHING LIGHT UNIT
	DERAIL WITH CIRCUIT CONTROLLER		CROSSING PREDICTOR NARROW BAND SHUNT (NBS)
	INSULATED JOINT		GRADE CROSSING PREDICTOR LOOKING SOUTH
	INSULATED END JOINT CIRCUIT TO THE RIGHT		GRADE CROSSING PREDICTOR LOOKING NORTH
	INSULATED END JOINT CIRCUIT TO THE LEFT		BI-DIRECTIONAL CROSSING PREDICTOR
	CENTRAL INSTRUMENT LOCATION (CIL)		GRADE CROSSING
	DUAL CONTROL SWITCH MACHINE		STATION PLATFORM
	VEHICLE DETECTION LOOP		WAYSIDE MILE MARKER
	WAYSIDE SIGNAL		

GENERAL NOTES

- EXISTING FEATURES DEPICTED ON THESE PLANS ARE BASED UPON AVAILABLE TOPOGRAPHIC MAPPING AND PRIOR WORK BY OTHERS. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION AND PROTECTION OF ALL EXISTING BURIED, SURFACE AND OVERHEAD FEATURES.
- FIELD VERIFY ALL PROPOSED WORK TO IDENTIFY POTENTIAL CONFLICTS WITH EXISTING UTILITIES, STRUCTURES AND FACILITIES. REPORT TO THE ENGINEER ANY POTENTIAL CONFLICTS THAT AFFECT THE ABILITY TO COMPLETE THE WORK AS INDICATED.
- GRADE CROSSING GATE/SIGNAL EQUIPMENT AND INSTALLATION SHALL COMPLY WITH CPUC REQUIREMENTS AND THE CALIFORNIA MUTCD.
- CONDUIT AND PULL BOX INSTALLATION SHALL COMPLY WITH SMART STANDARDS AND CONSTRUCTION SPECIFICATIONS.
- CONDUIT AND PULL BOX INSTALLATION SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF CPUC GENERAL ORDER No. 128.
- PULL BOXES SHALL BE POLYMER CONCRETE WITH OPEN BOTTOMS AND HEAVY-DUTY GASKETED COVERS.
- PROVIDE PULL BOX COVERS INSCRIBED WITH "SMART S&C" IN 1" HIGH LETTERING.
- PLACE A 6" MINIMUM LAYER OF COMPACTED DRAINAGE ROCK UNDER EACH PULL BOX AND EXTENDING AN ADDITIONAL 12" BEYOND THE PULL BOX FOOTPRINT.
- ALL CONDUITS SHALL BE PVC SCH 80.
- USE MANUFACTURED SWEEPS AND BENDS FOR CHANGES IN CONDUIT DIRECTION, VERTICALLY AND HORIZONTALLY.
- INSTALL CONDUITS SO THAT THEY DRAIN INTO THE PULL BOXES AT EITHER END, WITH NO INTERMEDIATE LOW POINTS.
- MINIMUM CONDUIT DEPTH IS 3'-0" BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
- SEE TRACKWORK DESIGN FOR ADDITIONAL INFORMATION ON CONDUIT PLACEMENT WITHIN ROADWAY GRADE CROSSINGS.
- INSTALL TRACER TAPE ABOVE ALL CONDUITS.
- INSTALL PULL ROPES IN ALL CONDUITS.
- CONTRACTOR IS RESPONSIBLE FOR FINAL DESIGN OF UTILITY SERVICE CONNECTION AND COORDINATION WITH PG&E AND SMART.
- THERE IS AN ABSOLUTE MINIMUM CLEARANCE OF 10 FEET FROM THE TRACK CENTERLINE AND ANY EQUIPMENT INSTALLED AT THE CROSSING INCLUDING THE WIND GUARD.

MARK THOMAS LTK

3000 OAK ROAD, SUITE 650
WALNUT CREEK, CA 94597
(925) 938-0383

DRAWN BY DG		
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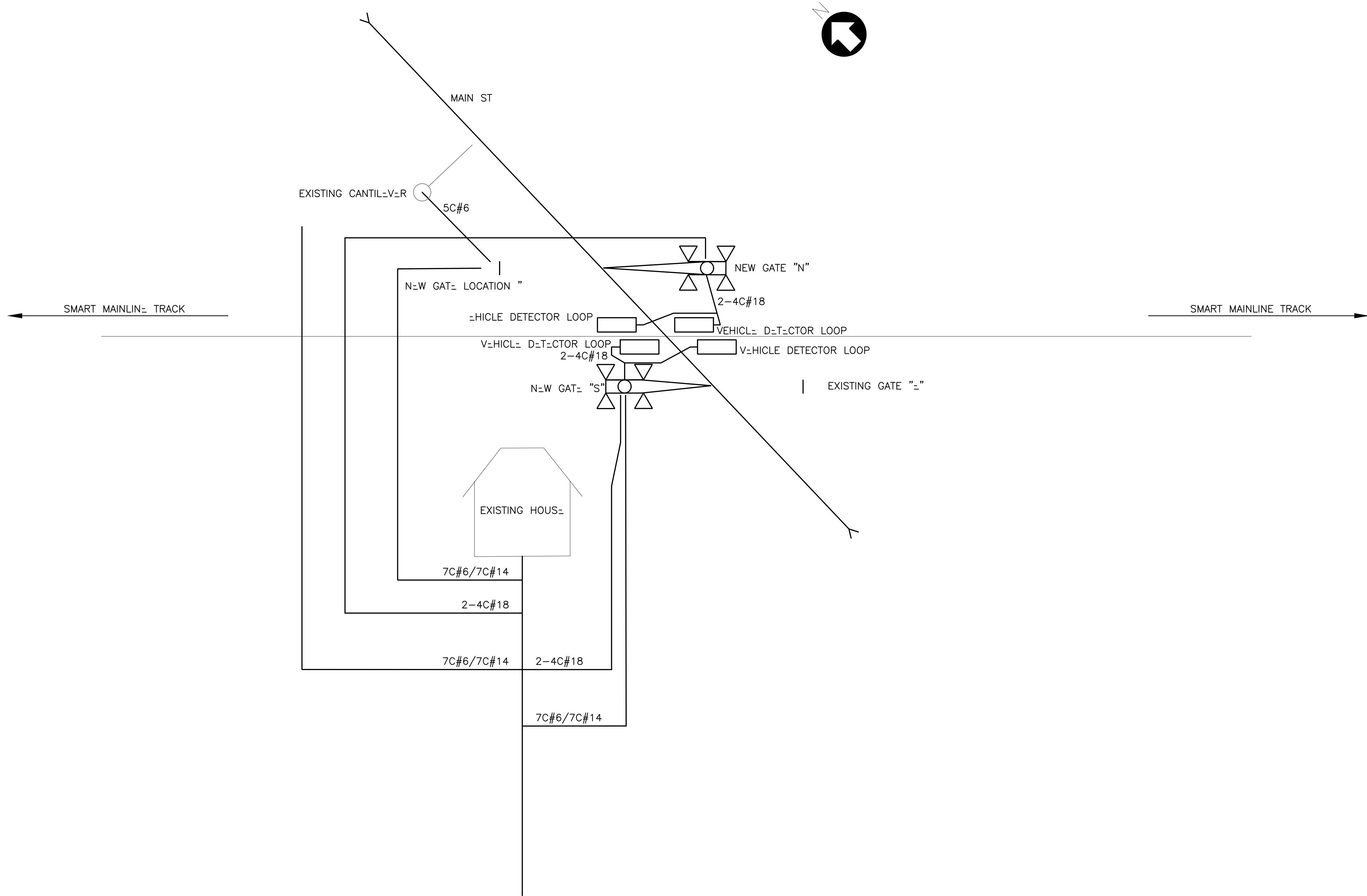


DESIGNED BY SL	CHECKED BY MC	ENGINEER, R.C.E. NO. E17500
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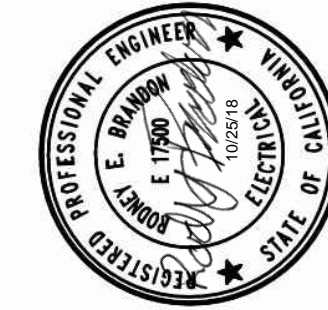
MAIN STREET GATES, PENN GROVE CA	LEGEND AND NOTES
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Date	Revision	By	SCALE N.T.S.
			DATE 10/12/18
			JOB NO. XXXX
			DRAWING NUMBER
			10 OF 12

Oct 22, 2018 - 7:10am



DRAWN BY
DG



DESIGNED BY
SL

CHECKED BY
MC

REGISTERED PROFESSIONAL ENGINEER
E 17500
STATE OF CALIFORNIA

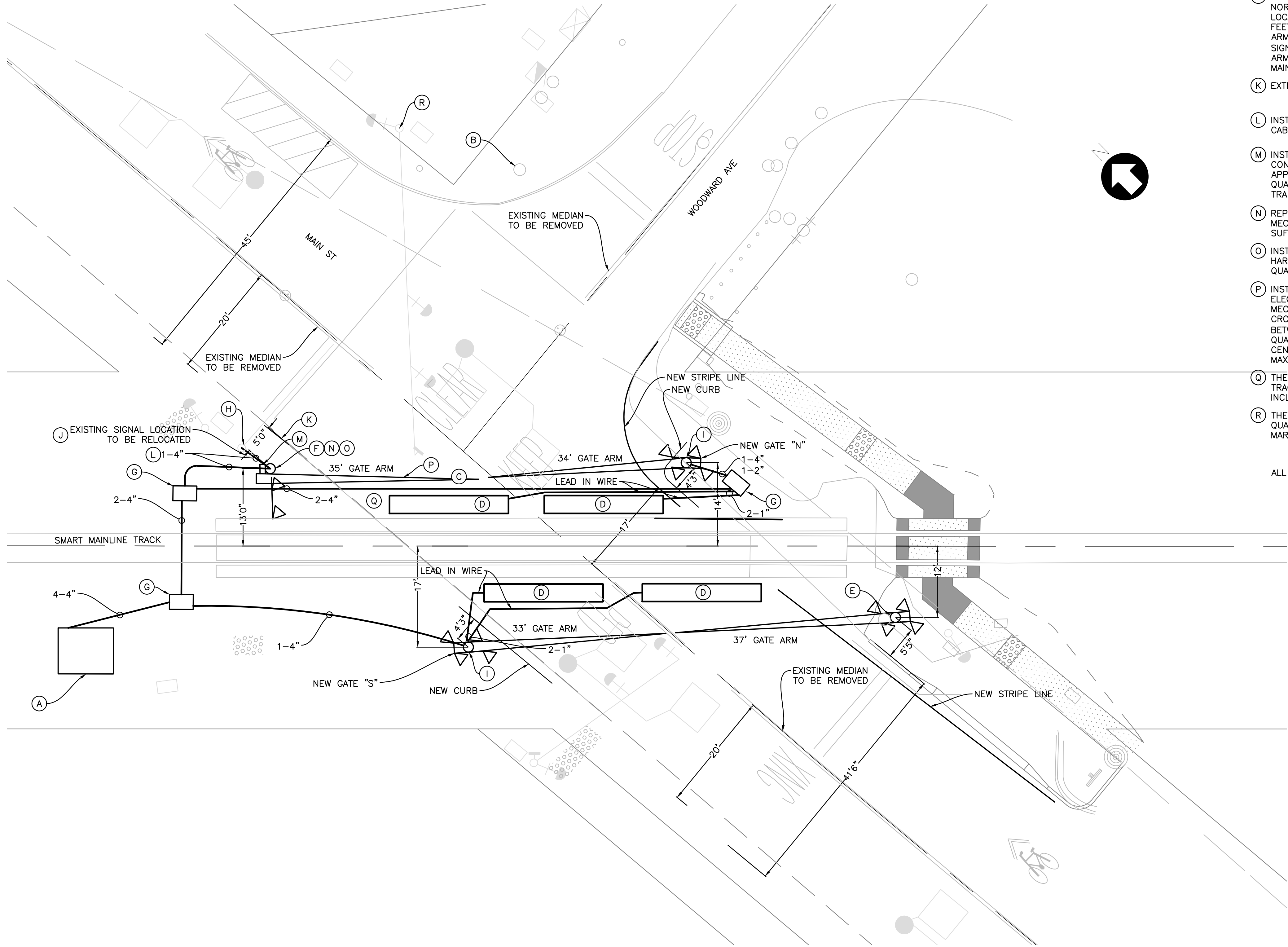
MAIN STREET GATES,
PENN GROVE CA

SCHEMATIC CABLE PLAN

Date	Revision	By

SCALE N.T.S.
DATE 6/19/18
JOB NO. XXXX
DRAWING NUMBER 11 OF 12

Oct 29, 2018 - 12:45pm



KEYNOTES:

- (A) EXISTING GRADE CROSSING SIGNAL HOUSE TO STAY.
- (B) REMOVE EXISTING GRADE CROSSING SIGNAL AND FOUNDATION ON WOODWARD AVE.
- (C) SAWCUT ROADWAY TO INSTALL CONDUIT ACROSS ROADWAY ON NORTH SIDE OF TRACKS.
- (D) SAWCUT ROADWAY FOR VEHICLE DETECTION LOOPS. 6' X 10' MINIMUM SIZE.
- (E) ROTATE EXISTING GATES ON EXISTING FOUNDATION, INSTALL LONGER GATE ARMS AND COUNTERWEIGHTS, ETC. (SEE NOTE J)
- (F) INSTALL NEW MAST AND SIDELIGHTS FACING WOODWARD AVE. ON GATE IN NW QUADRANT. ROTATE SIGNAL AS SHOWN. INSTALL REQUIRED GATE ARM AND COUNTERWEIGHTS, ETC.
- (G) 30"x48" SIGNAL PULL BOX.
- (H) EXISTING CANTILEVER TO REMAIN IN PLACE.
- (I) LOOP VEHICLE DETECTORS SHALL TERMINATE ON AAR TERMINALS IN THE NEW GATE DOUBLE SIDED JUNCTION BOX BASES. LEAD IN WIRES SHALL RUN FROM DOUBLE JUNCTION BOX BASE TO SIGNAL HOUSE. LOOP VEHICLE DETECTORS SHALL BE SAWCUT INTO PAVEMENT. CONDUIT IS TO BE RUN FROM THE DOUBLE JUNCTION BOX BASE TO THE EDGE OF THE PAVEMENT WITH A WATER TIGHT FITTING ON THE END OF THE CONDUIT. CABLE THEN RUNS IN SAWCUT TO LOOP.
- (J) RELOCATE, IF NECESSARY, THE CROSSING GATE MAST LOCATED IN THE NORTHWEST (NW) QUADRANT FROM ITS CURRENT LOCATION TO A LOCATION WHERE THE CROSSING GATE ARM IS: NO LESS THAN TEN FEET FROM THE CENTERLINE OF THE TRACK, AND; MAINTAINS A GATE ARM CLEARANCE OF FOUR TO FIVE FEET FROM THE EXISTING TRAFFIC SIGNAL CANTILEVER / SIGN IN THE SAME QUADRANT DURING THE GATE ARM RAISING AND LOWERING CYCLES WITH NO WIND IMPACT AND; MAINTAINS A FIVE FOOT DISTANCE BEHIND THE CURB LINE.
- (K) EXTEND NW CURB TO JUST SOUTH OF RELOCATED GATE AND CABLE.
- (L) INSTALL NEW CONDUIT AND CABLE TO NW GATE AND NEW CONDUIT AND CABLE FROM GATE TO CANTILEVER.
- (M) INSTALL, IF NECESSARY, A MAXIMUM OF THREE FOOT OFFSET GATE ARM CONVERSION BRACKET AS SUPPLIED BY L & W INDUSTRIES OR APPROVED EQUAL ON THE GATE ARM MECHANISM LOCATED IN THE NW QUADRANT TO ACHIEVE THE MAXIMUM GATE ARM CLEARANCE FROM THE TRAFFIC SIGNAL CANTILEVER. SEE NOTE R.
- (N) REPLACE THE EXISTING STUB SIGNAL MAST SUPPORTING THE GATE MECHANISM LOCATED IN THE NW QUADRANT WITH A SIGNAL MAST OF SUFFICIENT HEIGHT TO SUPPORT THE OFFSET WIND GUARD.
- (O) INSTALL AN OFFSET WIND GUARD AND ALL THE NECESSARY MOUNTING HARDWARE TO RESTRAIN THE OFFSET GATE ARM LOCATED IN THE NW QUADRANT IN ITS VERTICAL CONDITION DURING HIGH WIND EVENTS.
- (P) INSTALL A HIGH WIND PROFILE GATE ARM, AS SUPPLIED BY NATIONAL ELECTRIC GATE COMPANY OR APPROVED EQUAL ON THE GATE MECHANISM LOCATED IN THE NW QUADRANT. ENSURE THAT THE CROSSING GATE ARM IS OF SUFFICIENT LENGTH THAT THE CLEARANCE BETWEEN IT AND THE GATE ARM LOCATED IN THE NORTHEAST (NE) QUADRANT ARE NO MORE THAN ONE FOOT FROM THE ROADWAY CENTERLINE WHEN THEY ARE IN THE HORIZONTAL POSITION. THE MAXIMUM GATE ARM LENGTH IS 36 FEET.
- (Q) THERE IS AN ABSOLUTE MINIMUM CLEARANCE OF 10 FEET FROM THE TRACK CENTERLINE AND ANY EQUIPMENT INSTALLED AT THE CROSSING, INCLUDING THE WIND GUARD.
- (R) THE TRAFFIC SIGNAL CANTILEVER ASSEMBLY IN PROXIMITY TO THE NW QUADRANT GATE ARM IS TO BE REDUCED BY 2 FEET AS SHOWN ON MARK THOMAS PLAN SHEET L-1.

ALL DIRECTIONS ARE GEOGRAPHICAL.

DRAWN BY
DG

DESIGNED BY
SL

CHECKED BY
MC

MAIN STREET GATES,
PENN GROVE CA

SIGNAL SYSTEM SITE PLAN

Date	Revision	By

SCALE: 1"=10'
DATE: 10/29/18
JOB NO.: XXXX
DRAWING NUMBER: 12 OF 12

EXHIBIT B

Work Budget

ITEM	ESTIMATE
Construction Cost	\$652,470
Contingency (10%)	\$ 65,247
SMART (10% of Construction Cost)	\$ 65,247
TOTAL	\$782,964

Stacy and Witbeck, Inc.

HERZOG

SWH-SMART-100

February 14, 2019

Mr. Bill Gamlen
Sonoma Marin Area Rail Transit
5401 Old Redwood Highway
Petaluma, CA 94954

Reference: SMART Larkspur Extension Project
Contract No. CV-DB-16-001
SWH Job No 16507

Subject: **Quad Gates at Penngrove**

Dear Mr. Gamlen,

Stacy and Witbeck/Herzog, a Joint Venture (SWH) submits pricing for the installation of Quad Gates on Penngrove Main St per drawings dated November 08, 2018. Total cost for this work is **\$652,470.00**

Please see clarification below:

- 1) Any Permits are Excluded
- 2) Quality Control is Excluded
- 3) Cost associated with Rail Road Protection is Excluded
- 4) All work to be completed during the weekday during normal daytime working hours.
- 5) Cost do not include pricing for Remob after the completion of the Larkspur Project.

Please find attached cost breakdown.

Should you have any questions please do not hesitate to contact the undersigned.

Sincerely,
Stacy and Witbeck/Herzog, A JV



Nick Slama
Contractors Representative

cc: DE, file

SMART Larkspur Extension
CV-DB-16-001

Cost:	\$ 569,615.71
Markup:	\$ 82,853.56

COR - 72 - Quad Gates at Penngrove

	Description	QTY	Hours	Rate/ Cost		Total Amount
A	Labor					
	Remove AC dike	LS				\$ 1,403.12
	Grade Sidewalk	LS				\$ 7,015.60
	Remove Medians	LS				\$ 7,015.60
	Trenching in Signal conduits	LS				\$ 11,224.96
	Install Crossing Panels	LS				\$ 2,806.24
	Retire Old Railroad Equipment	LS				\$ 1,403.12
					Subtotal Labor	\$ 30,868.64
					Labor Surcharge (11%)	\$ 3,395.55
					Total Labor Cost	\$ 34,264.19
B.	Equipment					
	Remove AC dike	LS				\$ 327.00
	Grade Sidewalk	LS				\$ 6,476.60
	Remove Medians	LS				\$ 499.60
	Trenching in Signal conduits	LS				\$ 7,254.08
	Install Crossing Panels	LS				\$ 3,322.88
	Retire Old Railroad Equipment	LS				\$ 327.00
					Subtotal Equipment	\$ 18,207.16
C.	Material					
	Remove AC dike	LS				\$ 1,150.00
	Grade Sidewalk	LS				\$ 3,959.00
	Remove Medians	LS				\$ 1,000.00
	Trenching in Signal conduits	LS				\$ 5,300.00
	Install Crossing Panels	LS				\$ 4,370.00
	Retire Old Railroad Equipment	LS				\$ 1,230.00
	Traffic Control Plans	2	EA	\$ 500.00		\$ 1,000.00
					Tax on Materials ((9%))	\$ 1,620.81
					Subtotal Material	\$ 19,629.81
D.	Subcontracts					
	MBE - Traffic Signal & Bore	1		\$ 28,000.00		\$ 28,000.00
	Ahlborn Fence	1	LS	\$ 5,920.00		\$ 5,920.00
	ABSL - AC Dike & Paving	1		\$ 18,000.00		\$ 18,000.00
	De Haro ramirez Group - conc	1		\$ 21,506.88		\$ 21,506.88
	CMC Striping	1		\$ 8,000.00		\$ 8,000.00
	CMC Traffic Control	15	Days	\$ 1,465.00		\$ 21,975.00
	Survey	1	LS	\$ 7,000.00		\$ 7,000.00
	MRS Signal Install	1	LS	\$ 369,854.00		\$ 369,854.00
					Subtotal Subcontract	\$ 480,255.88
A.	Subtotal Labor					\$ 34,264.19
	Labor Markup (15%)					\$ 5,139.63
					Total Labor	\$ 39,403.82
B.	Subtotal Equipment					\$ 18,207.16
	Equipment Markup (15%)					\$ 2,731.07
					Total Equipment	\$ 20,938.23
C.	Subtotal Material					\$ 19,629.81
	Material Markup (15%)					\$ 2,944.47
					Total Material	\$ 22,574.28
D.	Subtotal Subcontract					\$ 480,255.88
	Subcontract Markup (15%)					\$ 72,038.38
					Total Subcontract	\$ 552,294.26
	Subtotal Change Order					\$ 635,210.60
	Insurance (1.7%)					\$ 10,798.58
	Contractor Bond (1.0%)					\$ 6,460.09
	Total Change Order					\$ 652,469.27

**Mike Brown Electric Co.**

561-A Mercantile Dr.
Cotati, CA 94931-3040
(707) 792-8100 • FAX: (707) 792-8110
Cont. Lic. #306767
D.I.R. #1000000469

PROJECT: SMART Larkspur Extension – PCO 55
Penngrove Que Cutter Changes
LOCATION: Penngrove
BID DATE: 2/12/19
CONTRACT:

Date: 2/12/19

To: Nicholas Slama – Stacy and Witbeck/Herzog

From: Austin Smith

THE FOLLOWING IS OUR BID FOR THE ABOVE-REFERENCED PROJECT

Bid Item	Description	Quantity	Unit Price	Total
A	Trim SMA	Lump		\$6,000.00
	Trim SMA two (2) feet and relocate signal tenon			
	And gear. Traffic Control by others. *Sub required			
B	Bore Under Main St	Lump		\$22,000.00
	Bore two (2) four (4) inch SCH 40 HDPE conduits			
	under Main St. Conduits will be left stubbed at			
	Both sides to be routed accordingly by others. Any			
	Pot hole pave/patch back, bore pit backfill, and			
	Traffic control to be done by others.			

Total Base Bid: \$28,000.00

-
- Note: 1. Bid Based on Monthly Progress Payments with Final Payment (including retention) due 30 days after acceptance of our work by the owner.
2. Any Plan changes or specifications issued for this scope of work/plan sheets will require re-quoting and/or additional compensation for changes made.

Addenda's Noted:




- Excludes:**
- 1) Layout/Staking
 - 2) Permits/Fees including Caltrans
 - 3) Bond
 - 4) Traffic Control
 - 5) Off Haul of Spoils
 - 6) PG &E Fees (if any)
 - 7) Hazardous Waste Removal

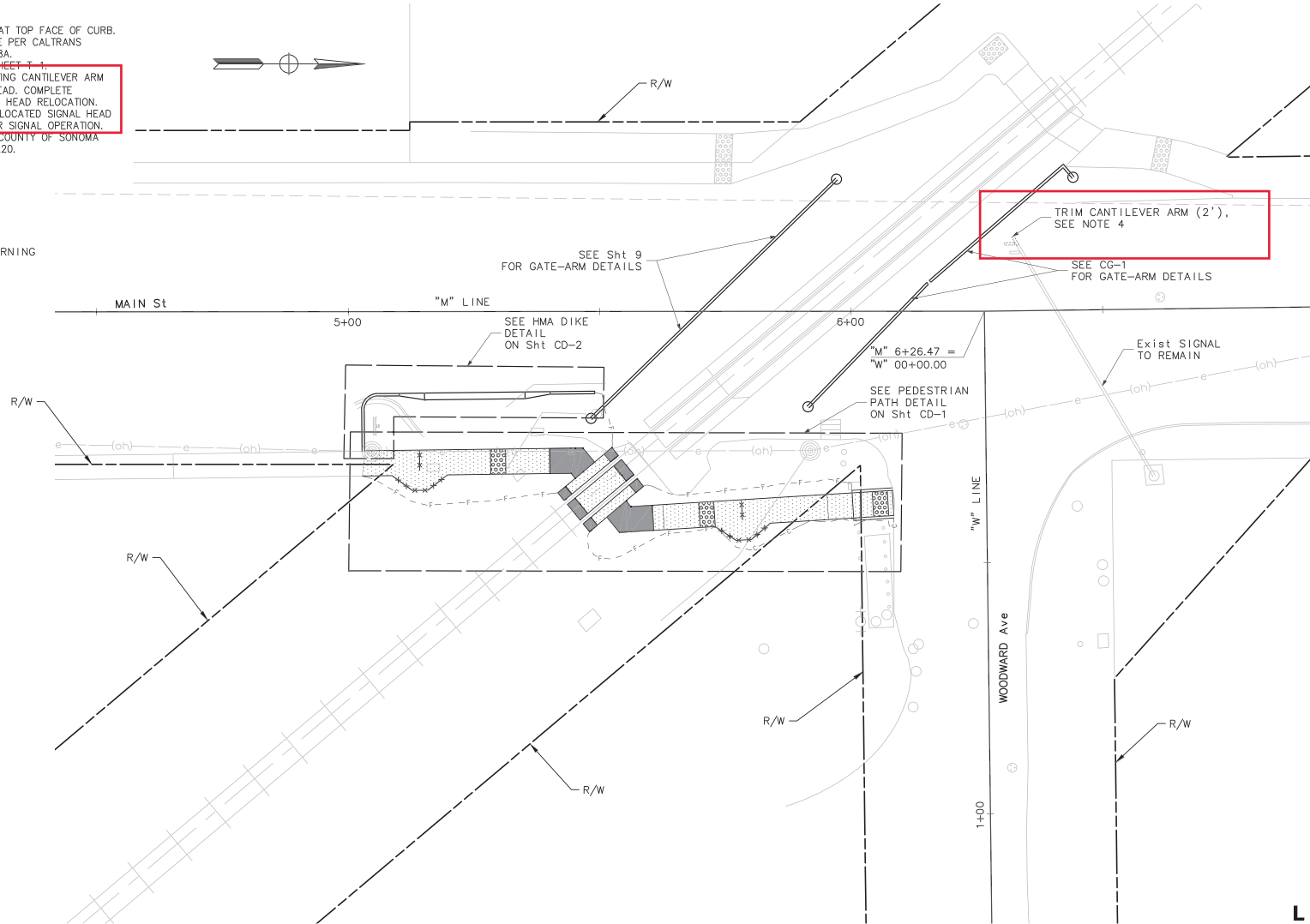
ITEM "A"

NOTES:

1. ALL CURB LOCATIONS ARE AT TOP FACE OF CURB.
2. CURB RAMPS SPECIFIED ARE PER CALTRANS STANDARD PLANS RSP A88A.
3. FOR ABBREVIATIONS, SEE SHEET T-1.
4. CONTRACTOR TO TRIM EXISTING CANTILEVER ARM BY 2'. RELOCATE SIGNAL HEAD. COMPLETE REWIRING WORK FOR SIGNAL HEAD RELOCATION. CONTRACTOR TO REMIRE RELOCATED SIGNAL HEAD AS NECESSARY FOR PROPER SIGNAL OPERATION.
5. FOR SIDEWALK DETAIL SEE COUNTY OF SONOMA CONSTRUCTION STANDARD 220.

LEGEND:

-  CONCRETE SW
-  DETECTABLE WARNING SURFACE
-  HMA
- - - F - LIMIT OF FILL
- - - C - LIMIT OF CUT
- ***** FENCE (3')



L-1

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.

Underground Service Alert
Call: TOLL FREE
1-800
642-2444

NO WORKING DAYS BEFORE YOU DIG

Date	Revision	By	Scale
11/09/2018			1" = 10'
JOB NO.	CC-16101		
DRAWING NUMBER			
			5 OF 12

MARK THOMAS
3000 OHIO ROAD, SUITE 850
WALTON, CA 95997
(925) 938-0393



DESIGNED BY: SQ
CHECKED BY: AL
ENGINEER, R.C.E. NO. 32444

PROJECT: PENNINGTON QUAD GATES
MAIN ST & WOODWARD AVE
SONOMA COUNTY

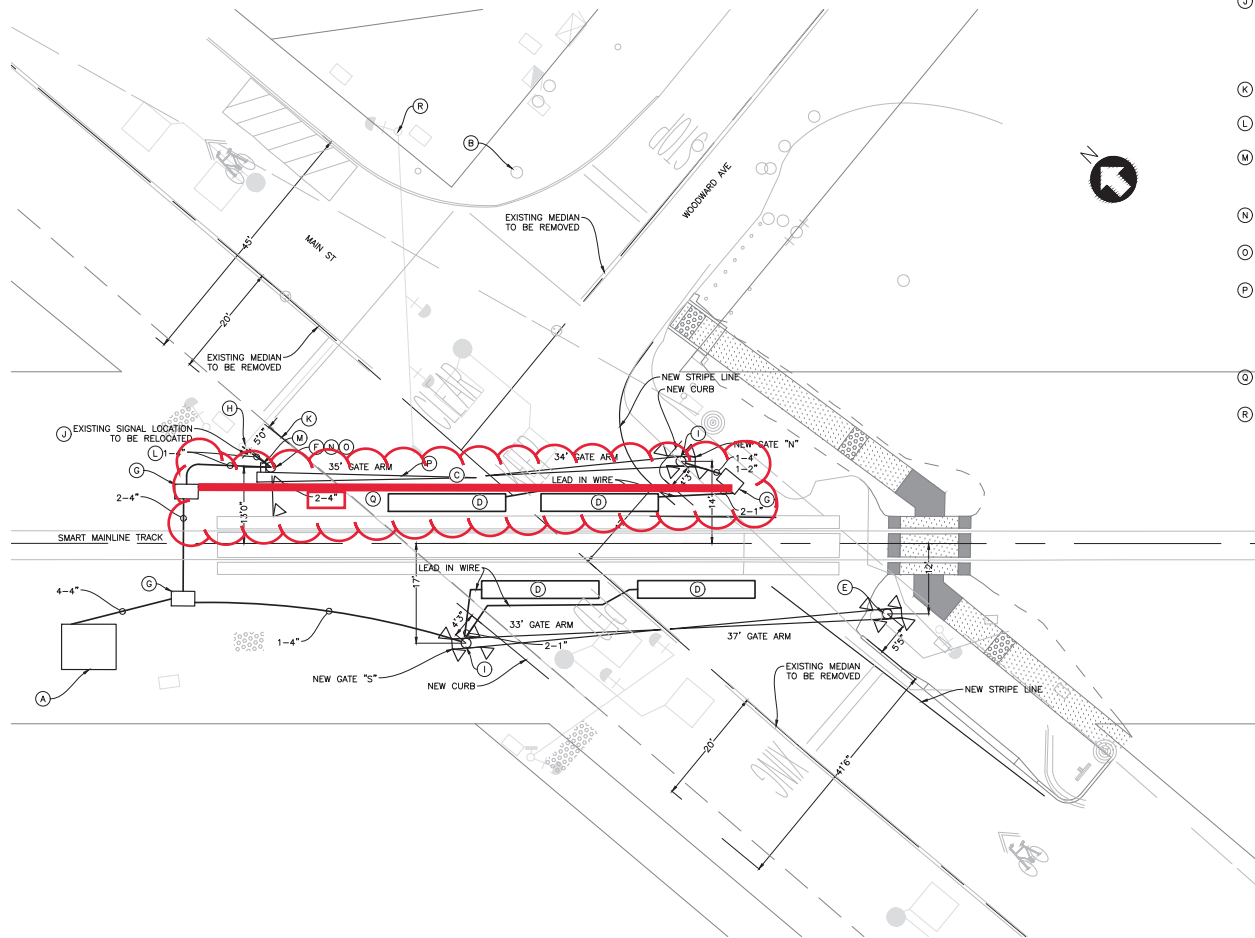
LAYOUT



ITEM "B"

KEYNOTES:

- (A) EXISTING GRADE CROSSING SIGNAL HOUSE TO STAY.
 - (B) REMOVE EXISTING GRADE CROSSING SIGNAL AND FOUNDATION ON WOODWARD AVE.
 - (C) SAWCUT ROADWAY TO INSTALL CONDUIT ACROSS ROADWAY ON NORTH SIDE OF TRACKS.
 - (D) SAWCUT ROADWAY FOR VEHICLE DETECTION LOOPS. 6' X 10' MINIMUM SIZE.
 - (E) ROTATE EXISTING GATES ON EXISTING FOUNDATION, INSTALL LONGER GATE ARMS AND COUNTERWEIGHTS, ETC. (SEE NOTE J)
 - (F) INSTALL NEW MAST AND SIDELIGHTS FACING WOODWARD AVE. ON GATE IN NW QUADRANT. ROTATE SIGNAL AS SHOWN. INSTALL REQUIRED GATE ARM AND COUNTERWEIGHTS, ETC.
 - (G) 30"x48" SIGNAL PULL BOX.
 - (H) EXISTING CANTILEVER TO REMAIN IN PLACE.
 - (I) LOOP VEHICLE DETECTORS SHALL TERMINATE ON AAR TERMINALS IN THE NEW GATE DOUBLE SIDED JUNCTION BOX BASES. LEAD IN WIRES SHALL RUN FROM DOUBLE JUNCTION BOX BASE TO SIGNAL HOUSE.
 - (J) RELOCATE, IF NECESSARY, THE CROSSING GATE MAST LOCATED IN THE NORTHWEST (NW) QUADRANT FROM ITS CURRENT LOCATION TO A LOCATION WHERE THE CROSSING GATE ARM IS NO LESS THAN TEN FEET FROM THE CENTERLINE OF THE TRACK, AND; MAINTAINS A GATE ARM CLEARANCE OF FOUR TO FIVE FEET FROM THE EXISTING TRAFFIC SIGNAL CANTILEVER / SIGN IN THE SAME QUADRANT DURING THE GATE ARM RAISING AND LOWERING CYCLES WITH NO WIND IMPACT AND; MAINTAINS A FIVE FOOT DISTANCE BEHIND THE CURB LINE.
 - (K) EXTEND NW CURB TO JUST SOUTH OF RELOCATED GATE AND CABLE.
 - (L) INSTALL NEW CONDUIT AND CABLE TO NW GATE AND NEW CONDUIT AND CABLE FROM GATE TO CANTILEVER.
 - (M) INSTALL, IF NECESSARY, A MAXIMUM OF THREE FOOT OFFSET GATE ARM CONVERSION BRACKET AS SUPPLIED BY L & W INDUSTRIES OR APPROVED EQUAL ON THE GATE ARM MECHANISM LOCATED IN THE NW QUADRANT TO ACHIEVE THE MAXIMUM GATE ARM CLEARANCE FROM THE TRAFFIC SIGNAL CANTILEVER. SEE NOTE R.
 - (N) REPLACE THE EXISTING STUB SIGNAL MAST SUPPORTING THE GATE MECHANISM LOCATED IN THE NW QUADRANT WITH A SIGNAL MAST OF SUFFICIENT HEIGHT TO SUPPORT THE OFFSET WIND GUARD.
 - (O) INSTALL AN OFFSET WIND GUARD AND ALL THE NECESSARY MOUNTING HARDWARE TO RESTRAIN THE OFFSET GATE ARM LOCATED IN THE NW QUADRANT IN ITS VERTICAL CONDITION DURING HIGH WIND EVENTS.
 - (P) INSTALL A HIGH WIND PROFILE GATE ARM, AS SUPPLIED BY NATIONAL ELECTRIC GATE COMPANY OR APPROVED EQUAL ON THE GATE MECHANISM LOCATED IN THE NW QUADRANT. ENSURE THAT THE CROSSING GATE ARM IS OF SUFFICIENT LENGTH THAT THE CLEARANCE BETWEEN IT AND THE GATE ARM LOCATED IN THE NORTHEAST (NE) QUADRANT ARE NO MORE THAN ONE FOOT FROM THE ROADWAY CENTERLINE WHEN THEY ARE IN THE HORIZONTAL POSITION. THE MAXIMUM GATE ARM LENGTH IS 36 FEET.
 - (Q) THERE IS AN ABSOLUTE MINIMUM CLEARANCE OF 10 FEET FROM THE TRACK CENTERLINE AND ANY EQUIPMENT INSTALLED AT THE CROSSING, INCLUDING THE WIND GUARD.
 - (R) THE TRAFFIC SIGNAL CANTILEVER ASSEMBLY IN PROXIMITY TO THE NW QUADRANT GATE ARM IS TO BE REDUCED BY 2 FEET AS SHOWN ON MARK THOMAS PLAN SHEET L-1.
- ALL DIRECTIONS ARE GEOGRAPHICAL.



MARK THOMAS LTK
 3200 OAK ROAD, SUITE 650
 WALNUT CREEK, CA 94597
 (925) 938-0383

DRAWN BY
DC



DESIGNED BY
SL

CHECKED BY
MC

MAIN STREET GATES,
PENNGROVE CA

SIGNAL SYSTEM SITE PLAN

ENGINEER, R.C.E. NO. 17500

Date	Revision	By	SCALE, 1"=10'
			DATE 10/29/18
			JOB NO. XXXX
			DRAWING NUMBER
			12 OF 12

Oct 29, 2018 - 12:45pm

P:\Projects\C5106 - Main Street Gates\CADD\DWG\PLAN SHEETS\J-03.dwg

FOR REDUCED PLANS, THE ORIGINAL SCALE IS IN INCHES





1230 CENTURY COURT
SANTA ROSA, CA 95403
P (707) 573-0742
F (707) 573-0788
www.ahlbornco.com

LICENSE# 793504
C-13 C-23 C-51
DIR# 1000001160

PROPOSAL #: .
PROJECT NAME: Penngrove Quad Gates
PROJECT LOCATION: Penngrove Ca

Stacywitbeck
Attn: Nick Slama

REV #	DATE
0	1/15/19

Ahlborn Fence & Steel, Inc. offers to provide materials and/or labor to complete the following work:

Install appx 32ft of 4ft black vinyl coated chainlink fence with top and bottom rails, core drilling existing concrete is included.

Total for work as described above, all taxes included-\$5920.

All public works bids that have a bid opening date, Ahlborn Fence & Steel, Inc. must be notified within 10 days of bid date if listed as a subcontractor on this project. We reserve the right to withdraw our bid if not notified in this time frame.

EXCLUSIONS:

- Permits, bonds, and inspection fees are excluded.
- Ahlborn Fence & Steel, Inc. will be responsible for ordering a standard Underground Service Alert (U.S.A.) for location of public utilities.
- Private utilities are to be located and marked by others. Damage done to unmarked private utilities is not the responsibility of Ahlborn Fence & Steel, Inc.
- Exact line, location and elevation of the fence is to be determined by owner prior to starting work.
- All protection of potential runoff into waterways and drain systems is the responsibility of the General Contractor/Controlling Contractor.
- After execution of contract, deleted scope items may not be credited at full price due to Ahlborn Fence & Steel, Inc. administration and set up procedures.
- All excavated posthole dirt will be spread on site unless otherwise stated in this proposal.
- All painting and staining of fences are excluded unless stated otherwise in this proposal.
- Matching of colored concrete is excluded.
- Traffic control is excluded.
- This entire proposal must be included as part of the subcontract.

Note: This proposal is good for 30 (thirty) days from proposal date.

Ahlborn Fence & Steel, Inc. is a proud member of the American Fence Association, the California Fence Contractors Association, the National Ornamental & Miscellaneous Metals Association, and the North Coast Builders Exchange. We would like to thank you for taking the time to review our proposal. Should you have any questions or if I can be of further assistance, please do not hesitate to call.

Respectfully submitted,

Tom Ahlborn
AHLBORN FENCE & STEEL INC.

CUSTOMER SIGNATURE OF ACCEPTANCE

DATE



MBE/UNION CONTRACTOR
SF LBE CERTIFICATION # CMD08173958
CPUC DBE CERTIFICATION FIRM ID # 41669

Concrete Construction
License # 776852

BID PROPOSAL

February 6, 2019

Mr. Nicholas Slama
Stacy Witbeck, Inc
2800 Harbor Bay Parkway
Alameda, CA 94502

PROJECT: Penngrove Quad Gates
DHRG ESTIMATE NO. 19-013 – REV 1

Dear Mr. Slama:

De Haro Ramirez Group proposes to furnish and install work for the above referenced project **per plans and specifications by Mark Thomas dated 11/09/18**, and in accordance with De Haro Ramirez Group Standard Proposal Conditions (see attached).

Specific Inclusions:

Mobilization / General Conditions:

1. Provide DHRG project superintendent and management
2. Job site clean-up of DHRG scope of work items

Off-Site Civil Concrete

1. Form and install Concrete Side Walk Per Sonoma County Standard Specification including Truncated Dome.
2. Form and install Curbs at Walk Way/Truncated Dome Edge Per Sonoma County Standard Specification.

Specific Exclusions:

1. Anything not part of "Specific Inclusions" is excluded from this bid proposal.
2. Division 1 general requirements as they pertain to G.C.
3. Site Sub Grade excavation
4. Off haul and disposal of dirt spoils
5. Hazardous material abatement or handling of any kind.
6. Furnish of steel embeds of any kind.
7. Drill & Dowel and Sandblast operation due to recent OSHA Silica restrictions
8. Furnish and installation of base rock under site concrete.
9. Fine grade and compaction of base rock under site concrete
10. Pedestrian and traffic control

Specific Conditions/Qualifications:

1. The terms and conditions of this proposal as detailed in the scope of work and the exclusions supersede the General Terms and Conditions of **Stacy Witbeck** or those of the Prime Contract between **Stacy Witbeck** and owner for project **Penngrove Quad Gates** for which this proposal applies.
2. This proposal is contingent upon our review of final and complete construction documents.
3. No geotechnical report has been provided for this project.
4. All changes to work and subsequent increases and/or decreases to the contract price must be directed in writing and agreed as evidenced by mutual signature on said writing.
5. Sequence and timing to be in accordance with mutually agreed upon schedule strictly followed by all concerned. Contractor and subcontractor to work out a mutually agreeable pour sequence.
6. This proposal is contingent upon one continuous and uninterrupted construction mobilization.
7. If this proposal is accepted it must be attached as a rider to, or specifically reference to it in its entirety on the contract documents.
8. Pricing is based on acceptance of all bid items included in this proposal in their entirety. Pricing is subject to change upon acceptance of only select bid items without prior DHRG approval.

Standard Exclusions:

1. Anything not part of "Specific Inclusions" is excluded from this bid proposal.
2. Professional Survey and staking.
3. Permits or City/ County Fees, Testing or Inspection Fees.
4. Traffic control systems, sidewalk barricades, pedestrian access structures, police supervision.
5. Preparing all concrete sub grades, and rock grades to zero tolerance average, and random deviations of plus or minus .10'. Excavation for toe under curbs.
6. Protection of existing finish surfaces.
7. Aggregate base, sand, foam fill and compaction under all paving sections.
8. Backfill and compaction of walls and planters.
9. Mass excavation and shoring for wall installation. Grade to be provided to top of wall footing.
10. Backfill upon completion of wall construction.
11. Excavation for structures.
12. All shoring and dewatering.
13. Saw cutting and demolition of existing concrete or AC.
14. AC paving, signage and striping.
15. Miscellaneous utility trench patch back.
- 16. Anti-Graffiti Coatings.**
17. Concrete work inside building lines or work shown on structural drawings.
18. Night time and weekend work.
19. Supply and Install of Masonry Items, Granit curb, bricks, boulders, decorative rocks, decomposed granite, etc.
20. Supply and install of all precast concrete items.
21. Supply and install of wood benches and other elements attached to concrete walls.
22. Patch back waterproofing due to install of concrete formwork, we will minimize penetrate and coordinate with waterproofing sub to identify penetrations.
23. Supply of all steel/misc. metals imbedded items. Noising treads, handrail sleeves, lettering, etc.
24. FOOTINGS for park luminaries, signs, benches, bike racks, play equipment, architectural elements, site furnishings, mechanical, electrical and carpentry units, trash receptacles, drinking fountains and fence post, irrigation, mechanical, electrical equipment sign relocations, etc.
25. Protection or repair due to vandalism.



MBE/UNION CONTRACTOR
SF LBE CERTIFICATION # CMD08173958
CPUC DBE CERTIFICATION FIRM ID # 41669

Concrete Construction
License # 776852

26. Waterproofing and repair to waterproofed surfaces.
27. White Cement.
28. Slab sealers and joint fillers.
29. DI inlet construction. Bollards. Wheel Stops. All precast concrete.
30. Special Insurances, waiver of subrogation, ongoing operations and excess liabilities over \$2,000,000. Deductibles for OCIP/CCIP programs. DHRG reserves the right to adjust insurance premiums base on final insurance requirements.
31. OCIP/CCIP WRAP policies deductibles above \$2,000.00. OCIP/CCIP workers comp deducts based on an EMR rating of 1.0.
32. Bond.

Standard Terms:

1. Monthly progress payments to 90% of degrees of completion, retention due within 30 of substantial completion.
2. Proposal expires 90 days from date shown.

Pricing:

GRAND TOTAL **\$ 21,506.00**
(See Attached Schedule)

If you have any questions, please feel free to contact our office.

Submitted by:

De Haro Ramirez Group

By: *Ricardo Marrun*

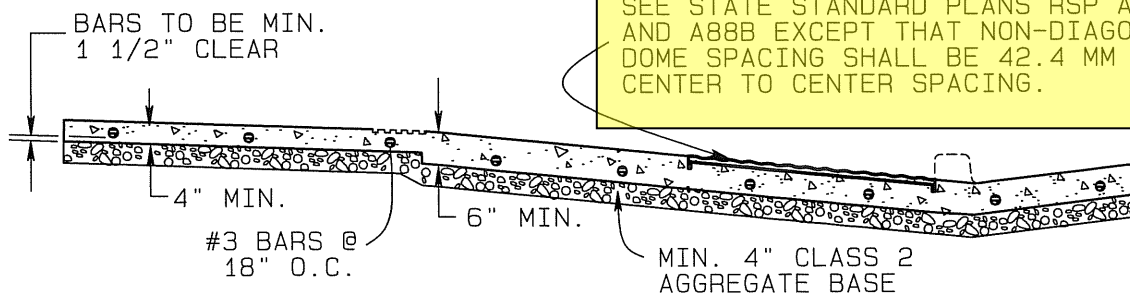
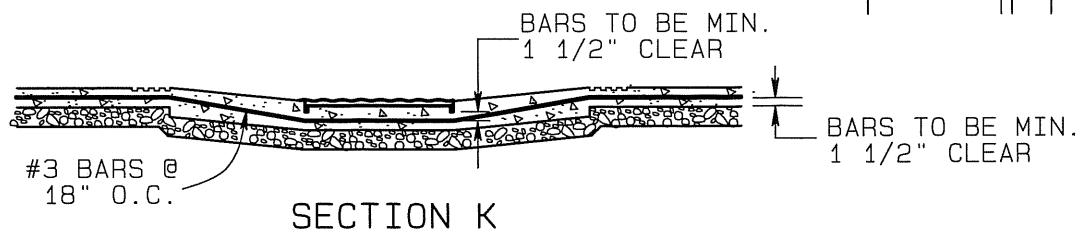
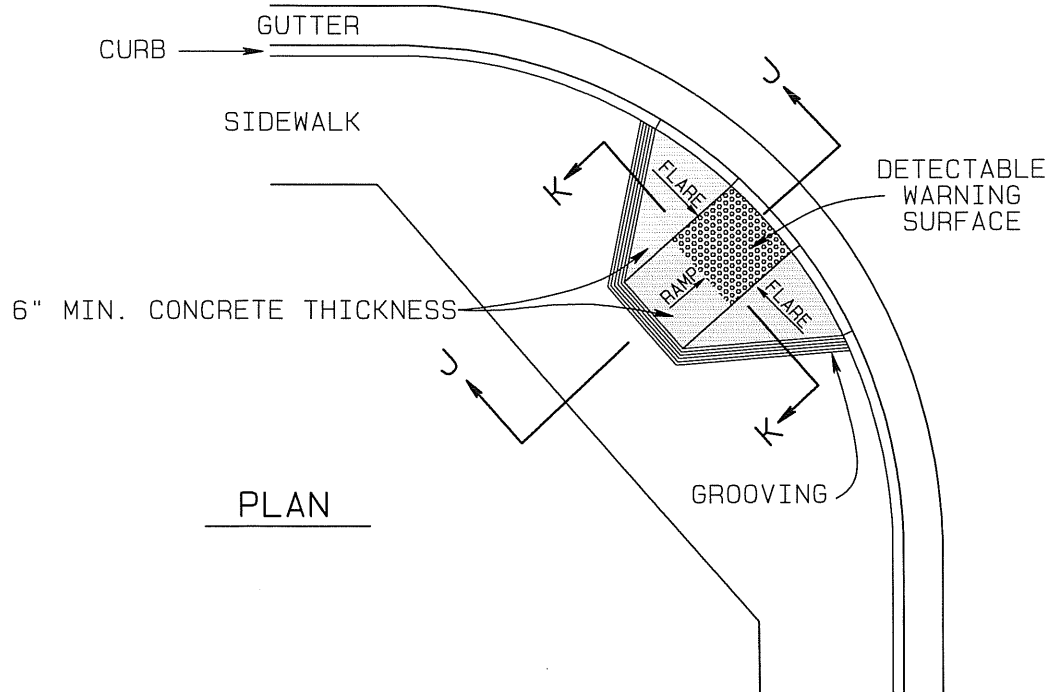
Ricardo Marrun, Senior Estimator

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Penngrove Quad Gates
REV 1
February 6, 2019

Item	Description	Quantity	Unit	Unit Price	Amount	Totals
	On Site Concrete					
1	Concrete Side Walk Per Sonoma Copunty Standard Specification including Truncated Dome	466	SF	\$ 36.02	\$ 16,785.25	
2	Curbs at Walk Way/Truncated Dome Edge Per Sonoma Copunty Standard Specification.	16	LF	\$ 165.78	\$ 2,652.56	
3		-	-			
4	SUBS	-	-			
5		-	-			
6		-	-			
7	GC's	-	-			
8	Submittals/Shop Drawings	1	LS	\$ 456.67	\$ 456.67	
9	Mockups	-	-			
10	Hoisting - Labor hours for rigging and traffic contral. We figure use of Tower Crane	-	-			
11	Parking	1	LS	\$ 228.33	\$ 228.33	
12	Supervision/Enginnering	1	LS	\$ 1,141.67	\$ 1,141.67	
13	Composite Cleanup	-	-			
	TOTAL					
	BASE BID AMOUNT					\$ 21,264.47
	Deduct for OCIP				0.00%	\$ -
	SUB-TOTAL					\$ 21,264.47
	ADD TEXTURA				0.18%	\$ 38.28
	ADD FOR ADDITIONAL COST OF OCIP DEDUCTABLE OF \$25,000.00 (DHRG Current Deductable is \$2,000.00)					\$? -
	ADD SF CITY GROSS RECEIPTS BUISNESS TAX				0.96%	\$ 204.14
	TOTAL					\$ 21,506.88



SECTION J

NOTES:

1. THIS DRAWING REPRESENTS TYPICAL CONCRETE AND BEDDING CONSTRUCTION REQUIREMENTS FOR ALL TYPES OF CURB RAMPS.
2. CONCRETE SHALL CONTAIN SIX SACKS OF CEMENT PER CUBIC YARD.
3. SEE GENERAL NOTES ON SONOMA COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS CONSTRUCTION STANDARDS DRAWING 224B.

COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC WORKS

CURB RAMP
EXCEPTIONS AND SUPPLEMENTAL
REQUIREMENTS TO STATE
STANDARD PLANS A88A AND A88B

DATE: MAY. 2004

REVISED: JUN. 2006

APPROVED BY:

SCALE:
NONE

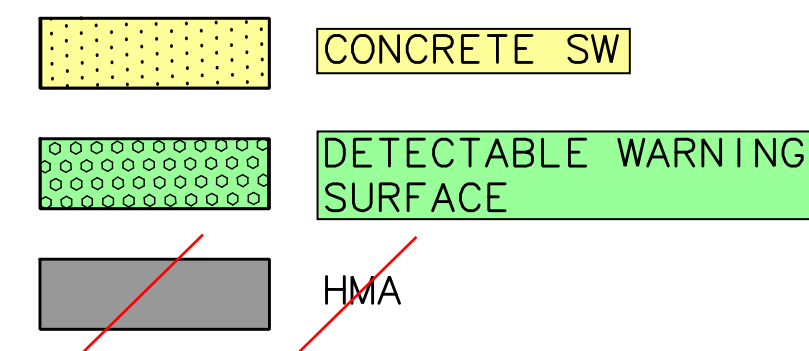
DRAWING NO.

224A

NOTES:

HMA DIKE (TYPE A) & HMA DIKE (TYPE E)
SHALL BE CONSTRUCTED PER CALTRANS REVISED
STANDARD PLAN RSP A87B

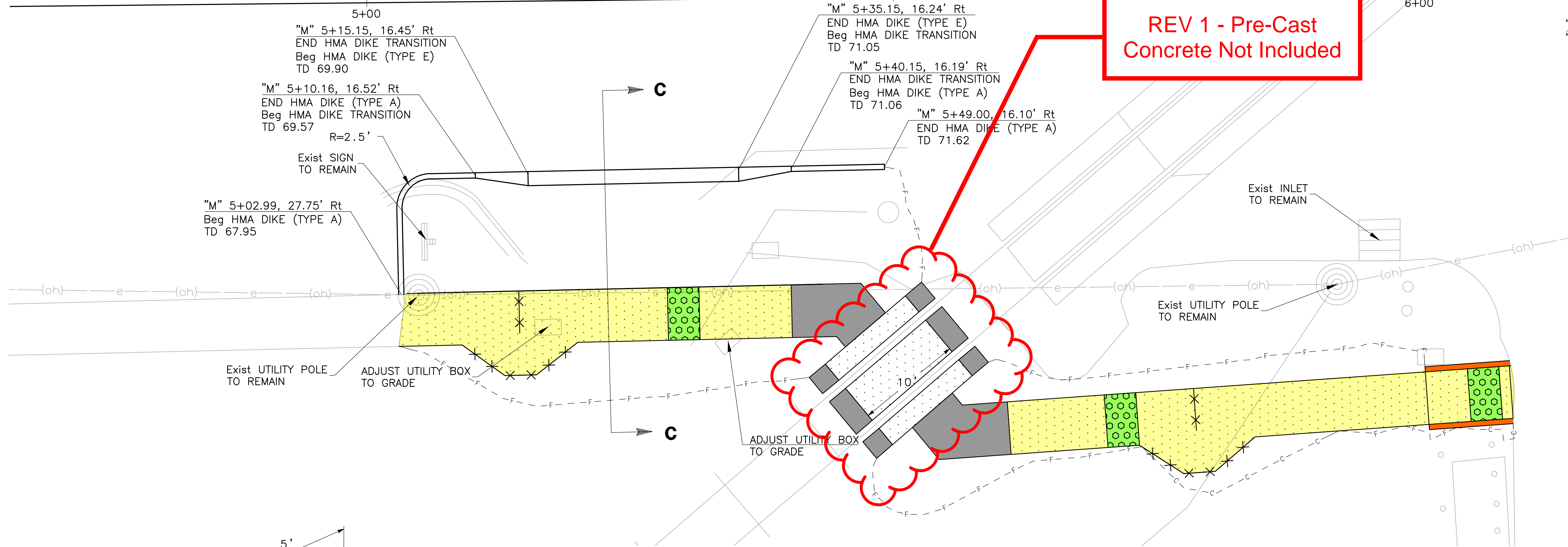
LEGEND:



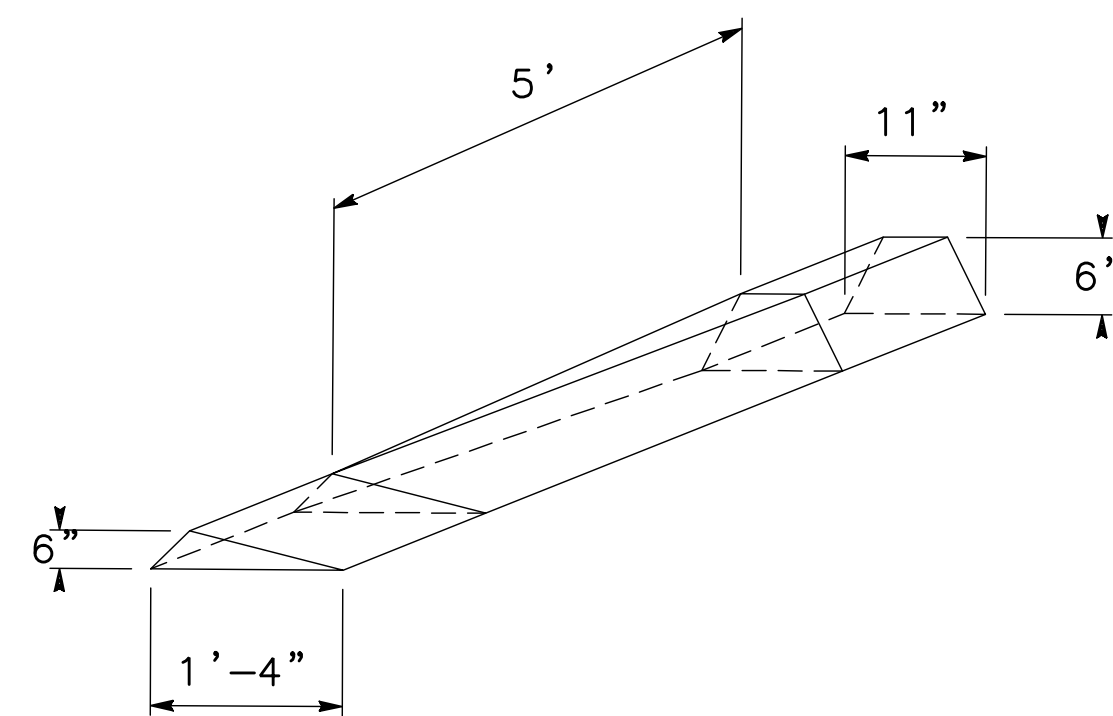
MAIN St

"M" LINE

**REV 1 - Pre-Cast
Concrete Not Included**

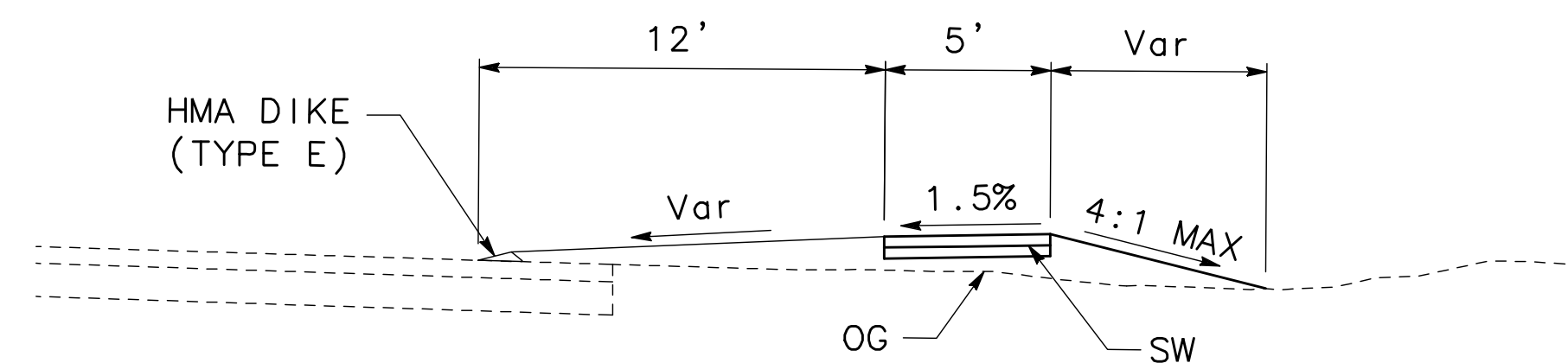


HMA DIKE DETAIL



**HMA DIKE TRANSITION DETAIL
(TYPE E/TYPE A)**

NO SCALE



SECTION C-C

NO SCALE

CD-2

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.

Underground Service Alert

Call: TOLL FREE 1-800-642-2444

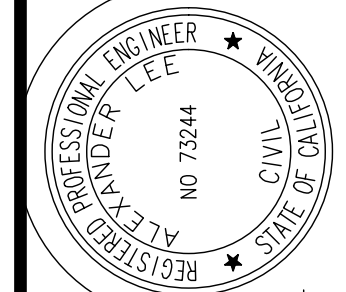
TWO WORKING DAYS BEFORE YOU DIG

Date	Revision	By

SCALE: 1" = 5'
DATE: 11/09/2018
JOB NO: CC-16101
DRAWING NUMBER: 7 OF 12

PENNGROVE QUAD GATES
MAIN STREET, PENNGROVE
SONOMA COUNTY

CONSTRUCTION DETAILS



DRAWN BY: SQ
DESIGNED BY: SQ
CHECKED BY: AL

DATE

MARK THOMAS
3000 OAK ROAD, SUITE 650
WALNUT CREEK, CA 94597
(925) 938-0383





8201 Southpark Lane, Suite 200
Littleton, CO 80120
Phone: 720-542-3325
Fax: 720-287-2649
www.modrailsystems.com

January 22, 2019

Larkspur MRS-SWHZ-007

Nick Slama
Stacy and Witbeck, Inc. (SWI)
2800 Harbor Bay Parkway
Alameda, CA 94502

Reference: Penngrove Quad Gates Signal Upgrades Quote (Change Notice 015) – Revised per 100% Drawings

Subject: Systems Pricing and Scope

Dear Mr. Slama,

Modern Railway Systems (MRS) is pleased to provide pricing for the above project per the below clarifications and assumptions.

A. Proposal – Basis Documentation

1. Transmittal No. SMART/SWH - 070

B. Construction Schedule and Phasing

1. Sequencing and internal Milestones to be agreed to in Project Schedule. MRS assumes work is to take place during the Larkspur Extension base contract work.
2. Adequate work areas with all required civil work (including all conduit full mandreled with pull ropes installed) complete to allow for continuous Systems installation.
3. MRS assumes no re-mobilization of crews.

C. Commercial Clarifications

1. Insurances have been included.
2. Railroad and Builders Risk Insurances have been excluded.
3. Bonding has been excluded.
4. DBE participation has been excluded.
5. Sales Tax of 8.50% has been included.

D. Scope

1. Furnish and Install 2 each new gates.
2. Modification of 2 each existing gates.
3. Modifications to existing house.
4. Furnish and install 4 each TWC loops.
5. Furnish and install signal cable for new gates and loops.
6. Provide design, testing and commissioning.
7. Remove of existing cable and gate(relocate)



8201 Southpark Lane, Suite 200
Littleton, CO 80120
Phone: 720-542-3325
Fax: 720-287-2649
www.modrailsystems.com

E. Assumptions and Exclusions

1. All exclusions and assumptions per our base proposal remain.
2. All conduit and pull boxes excluded.
3. Removal of existing crossing gate and associated foundation at northeast corner of Woodward (sheet 9 of 12 / note B on 12 of 12).
4. Traffic control is excluded.
5. All traffic signal work is excluded.

F. Price

\$369,854.00

We appreciate this opportunity and we look forward to helping to make this project successful. If you have any questions, please do not hesitate to contact me.

Best regards,

A handwritten signature in dark ink, appearing to read "Harry Newell", is written over a light blue horizontal line.

Harry Newell

HNewell@modrailsystems.com

Attachments:

Form BS – Bid Schedule – Larkspur Extension

Cc:

Ryan Snow
Paul Rieger
Steve Lindsay
Jeff Willcox

SMART – Sonoma-Marin Area Rail Transit - Larkspur Extension
Change Notice #015 - Penngrove Grade Crossing Warning System Modification
MRS Cost Estimate Worksheet - Summary

SCOPE OF WORK

DATE 1/19/2019

The work included:

- Design, furnish, install, test and commission gate modifications at the Main St. crossing in Penngrove
- Furnish, install and test two (2) new gates
- Modifications to two (2) existing gates including offset gate arm conversion bracket, wind guard and mast
- Furnish and install new cable for gates and TWC loops
- Furnish, install and test four (4) new TWC loops (conduit, JBs by others)
- Remove of existing cable and gate (relocate)

Notes / Exclusions:

- Exclusions and assumptions from base contract remain for this Change Order
- Excludes infrastructure including but not limited to conduit, handholes, pullboxes and manholes
- Excludes traffic control, flagging, railroad flagging, EIC's and watchmen
- Removal of existing crossing gate and associated foundation at northeast corner of Woodward (sheet 9 of 12 / Note B on 12 of 12)
- Excludes all traffic signal work including but not limited to trimming of existing cantilever

SUBCONTRACTORS	ITEM	QTY	UNIT	UNIT COSTS	TOTAL
MRS	Signal Installer MRS	1	LS	\$ 146,019	\$ 146,019
Alstom	Design, FAT, Deliver Existing House Mod Kits per 90% design	1	LS	\$ 125,098	\$ 125,098
Alstom	Updated quote per IFC (Add mast, sidelights, wind guard, conversion bracket)	1	LS	\$ 8,375	\$ 8,375
SUBTOTAL (SUBCONTRACTORS)					\$ 279,492
LABOR					
<i>MRS INDIRECTS</i>					
	Senior Project Manager	4	HRS	\$ 144.38	\$ 577.52
	Project Manager	40	HRS	\$ 126.96	\$ 5,078.40
	Document Control	8	HRS	\$ 62.78	\$ 502.24
	Project Engineer	80	HRS	\$ 74.68	\$ 5,974.40
	Systems Engineer	0	HRS	\$ 129.45	\$ -
	Signal Super.	80	HRS	\$ 125.00	\$ 10,000.00
	QC / Safety Engineer	8	HRS	\$ 69.70	\$ 557.60
	Signal Test Personnel	80	HRS	\$ 104.61	\$ 8,368.80
	Scheduler	4	HRS	\$ 69.70	\$ 278.80
	Finance	4	HRS	\$ 69.70	\$ 278.80
SUBTOTAL (MRS INDIRECTS)					\$ 31,617
EQUIPMENT					
	1/2 Ton Pickup (Supervision)	208	HRS	\$ 11.74	\$ 2,441.92
SUBTOTAL (EQUIPMENT)					\$ 2,441.92
TRAVEL & PER DIEM					
	Testing	2	EA	\$ 2,500.00	\$ 5,000.00
SUBTOTAL (TRAVEL & PER DIEM)					\$ 5,000.00
OTHER					
	Insurance	1	LS	\$ 2,676	\$ 2,676
	Bond	1	LS	\$ 1,500	\$ 1,500
	Contingency	1	LS	\$ 7,500	\$ 7,500
SUBTOTAL (OTHER)					\$ 11,676
ALL DIRECT COSTS					
SUBTOTAL (ALL DIRECT COSTS)					\$ 330,226
MARK UP					12%
					\$ 39,627
Total Sell Price					\$ 369,854

1/22/2019

	Material	\$	35,569
	Tax		8.50%
	Subtotal Material	\$	38,592.37
	ST&S	\$	5,044.63
	Equipment	\$	18,304.51
Subtotal Equipment & Small Tools		\$	23,349.14
	Labor (MH)		889.00
Construction Foreman (\$/h)	\$		75.00
Construction Labor (\$/h)	\$		72.00
	Construction Foreman	\$	16,668.75
	Install Labor	\$	48,006.00
	Testing Labor	\$	-
	Incidental Overtime (Install)	\$	5,001
Incidental Overtime (Testing)	\$		14,402
	Subtotal Labor	\$	84,077.18
Subtotal Labor, Equipment, Material	\$		146,018.68
	Installer Indirects		0%
	Installer Indirects	\$	-
	Total w Indirects	\$	146,018.68
	Sub/DBE Markup		0%
	Sub/DBE Markup	\$	-
	Total Price	\$	146,018.68

2712 S Dillingham Rd
Grain Valley, Missouri 64029
Phone: 800 825-7090 ext. 217-4266
Email: shawn.crabtree@transport.alstom.com
www.alstom.com

Mr. Harry Newell
Project Manager
Modern Rail Systems

December 19, 2018

Serialized No. : ALSTOM/MRS-0005

REF: Subcontract Agreement SC50-515-001 Rev2, dated 28th day of February, 2018, by and between Alstom Signaling Operation, LLC, hereinafter called "Alstom", and Modern Railway Systems, Inc., hereinafter called "MRS". Project Name: SMART Larkspur Extension.

Subject: Change order for Penngrove Quad Gates – New 100% Drawings November 9, 2018.

Dear Mr. Harry Newell,

Alstom Signaling Operation is pleased to provide a proposal regarding the Changes identified below on the new 100% drawings for Penngrove Crossing received by email November 26, 2018. The additional work consists of the items identified below.

System Engineering:	0 hours	\$0
Application Engineering:	4 hours	\$621
Project Management:	2 hours	\$474
Total Labor:	6 hours	\$1,095

Additional Material:

- Install new mast and sidelights facing Woodward Ave in NW quadrant
- Exit gates have double sided junction boxes
- Add three foot offset gate arm conversion bracket
- Offset wind guard in NW quadrant

Material total:	\$6,089
Shipping	\$500
Sum of Labor and Material	\$7,684
Tax:	\$692
Grand Total:	\$8,375

Alstoms' total quoted price for your solution is set out herein in U.S. Dollars, shipment shall be per Inco terms 2010 Ex-Works JOBSITE, and is exclusive of all tariffs, licenses, bonds, and permits.

Material shipment will be at lead time once a change order or NTP- Notice to Proceed is received.

Should you have any questions, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, reading "Shawn Crabtree".

Shawn Crabtree
Senior Project Manager
Alstom Signaling Operation, LLC

cc: Bill Shields

2712 S Dillingham Rd
Grain Valley, Missouri 64029
Phone: 800 825-7090 ext. 217-4266
Email: shawn.crabtree@transport.alstom.com
www.alstom.com

Mr. Steve Lindsay
Project Manager
Modern Rail Systems

May 2, 2018

Serialized No. : ALSTOM/MRS-0084

REF: 1) Subcontract Agreement, dated 28th day of June, 2013, by and between Alstom Signaling Operation, LLC, hereinafter called "Alstom", and Modern Railway Systems, Inc., hereinafter called "MRS". Project Name: SMART E-ATC Project
2) Drawings from Main St.

Subject: Penngrove Quad Gate

Dear Mr. Steve Lindsay,

Alstom is pleased to provide a proposal for the Penngrove Quad Gate and Ped Gate Change per MRS's request email dated 4/17/18 titled Penngrove Quad Gate and Ped at Grade Crossing.

Breakout per below:

Material = \$77,406
AE Hours 238 hours = \$33,161
PM hours 24 = \$4,202
Tax = \$10,329
Total: **\$125,098**

Includes:

- 2 new WCH Exit gates with lamps and bells and 4 new gate arms with lamps
- Loop detectors with ground loop cable
- Integration of change into existing shelter location
 - New Charger
 - Additional ElectroLogIXS I/O
 - Plans
 - New application Logic

The schedule will be a mutually agreeable schedule once a Change Order is received.

Alstoms' total quoted price for your solution is set out herein in U.S. Dollars, shipment shall be per Inco terms 2010 Ex-Works JOBSITE, and is exclusive of all tariffs, licenses, bonds, and permits.

This proposal will remain valid for sixty - (60) days from the date of this letter.

Alstom welcomes the opportunity to provide a solution to your transportation needs. If you have any questions or require any further assistance, please feel free to contact us.

Sincerely,



Shawn Crabtree
Senior Project Manager
Alstom Signaling Operation, LLC

cc: Bill Shields



Concrete Crossings & Railroad Products

Washington, California, Nebraska, & Texas Mfg. Facilities

Home Office: 7304 NE St. Johns Rd. Vancouver, WA 98665

Phone (360) 694-3221 * Fax (360) 694-3882 * Mobile (503) 803-0629

Price Quotation: Concrete Crossing Panels - SMART Larkspur

Location: Petaluma, CA	Submittal Date: 1/15/2019
Customer: Stacy and Witbeck / Herzog Joint Venture	Contact: Nick Slama
Address: 5401 Old Redwood Highway, Suite 200	Phone: 510-393-2520
Petaluma, CA 94954	NSlama@stacywitbeck.com

Qty.	Description	Unit \$
16.25	Omega Steel-Clad Concrete Crossing Panels. SMART Standard 8.125' Lag-Down Panels Designed For Use With 115 RE Rail. Panels Are Constructed Using Air Entrained 6000+ psi Concrete Mix, Two Mats Of #5 ASTM A706 Rebar Reinforcement, 3" X 3" Steel Angle Frame, Pre-Attached Rubber Flangeway Filler With 2.5" ADA Gauge Flangeway Opening, Non-Conductive Gauge Panel Shunt Break, Stainless Steel Lifting Eyes, Skid- Resistant Finish, And Liquid Membrane Concrete Sealant. Precast Panel Design Meets AASHTO HS20-44 Load Rating. Designed For Use On 10' Prestressed Concrete Ties Spaced 24" On Center. ALL STEEL, CONCRETE, AND RUBBER PRODUCTS ARE MADE IN THE USA.	\$192.00
	16.25 Track Feet (2 Sets) Tangent 8.125' Lag-Down ADA Crossing Panels	
	Optional Steel End Deflector Plates (\$425 Per Set). One Set Covers Both Ends Xing	
1	Freight Estimate: 1 Flatbed Load **	\$1,250.00
	** Due To Light Load, Every Effort Will Be Made To Find Partial Load & Save Shipping Cost	
	Note: Due To Unpredictable Fuel Prices, All Freight Rates Are Subject To Change At Actual Time Of Delivery.	
Total:		\$4,370.00

Delivery: Special Order - TBD based on current workload	Terms: Net 30 Days
Quoted By: Mark L. Mottola	Title: Sales Mgr.

Thank you for the opportunity to bid on this job, if you have any questions please feel free to call.
Please note that quotations are valid for **SIXTY (60) DAYS** from submittal date. **State Sales tax not included.**

Transmittal

Contract No.: CV-DB-16-001

Contract Title: Larkspur Extension Project



Transmittal No: SMART/SWH – 070

Date: 12/04/2018

From: Ahmed Thleiji
Office Engineer
Sonoma-Marin Area Rail Transit
5401 Old Redwood Highway, 2nd Floor
Petaluma, California 94954

To: Dan Elshire
Project Manager
Stacy and Witbeck, Inc.
2800 Harbor Bay Parkway
Alameda, California 94502

Subject: Transmittal 070 – Change Notice 015 Penngrove Grade Crossing Warning System Modification

Sending Via: Email

- | | | | | |
|--|--|--|---|----------------------------------|
| <input type="checkbox"/> Shop Drawings | <input type="checkbox"/> Copy of Letters | <input type="checkbox"/> Prints | <input type="checkbox"/> Specifications | <input type="checkbox"/> Samples |
| <input type="checkbox"/> Plans | <input type="checkbox"/> Change Orders | <input checked="" type="checkbox"/> Change Notices | <input type="checkbox"/> Other | <input type="checkbox"/> CEPC |

Transmitted as Noted Below:

- | | | | |
|---------------------------------------|---------------------------------------|---------------------------------------|--|
| <input type="checkbox"/> For Approval | <input type="checkbox"/> For Your Use | <input type="checkbox"/> As Requested | <input checked="" type="checkbox"/> For Review and Comment |
|---------------------------------------|---------------------------------------|---------------------------------------|--|

Transmittal Items:

SMART signed Change Notice 015

Notes:

Please see attached Change Notice and provide a cost proposal as requested in the Change Notice.

Signed:  12/04/18

Field File Number(s):

Distribution:

Change Notice No. 015

Contract No.: CV-DB-16-001

Contract Title: Larkspur Extension Project



Date Prepared: 11/29/2018

Change Notice Title: Penngrove Grade Crossing Warning System Modification

COST & TIME PROPOSAL ONLY. Contractor shall submit, within fourteen days (14) of this request, a detailed price and schedule proposal supported with documentation that reflects all direct and indirect cost and time-related impacts on the Contract. Change Notice shall be in compliance with "General Condition 4.2.1 Change Notices and Change Requests".

Scope of Work:

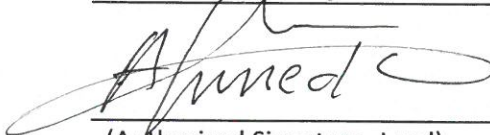
Please provide a price proposal for the following changes on the Main Street grade crossing warning system in Penngrove, including, but is not limited to:

- Installation of quad gates
- Installation of HMA dikes and curbs
- Trim cantilever arm
- Install concrete pedestrian walkway with detectible warning surfaces
- Installation of traffic striping
- Removal of medians
- Installation of concrete panels
- Removal or rotation of existing crossing signals and foundations
- Installation of high wind profile gate arm
- Installation of traffic loops, conduits, and cabling

See attached plan for more information.

Issued By: Ahmed Thleiji

Title: Project Engineer

 12/4/2018

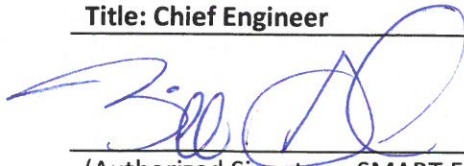
(Authorized Signature, Lead)

Date

Concurred By: Bill Gamlen

Acknowledged By:

Title: Chief Engineer

 12/4/18

(Authorized Signature, SMART Eng.)

Date

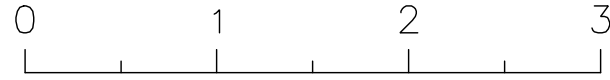
Title: Project Representative

 1/15/19

(Authorized Signature, Contractor)

Date

Nov 08, 2018 - 8:35am

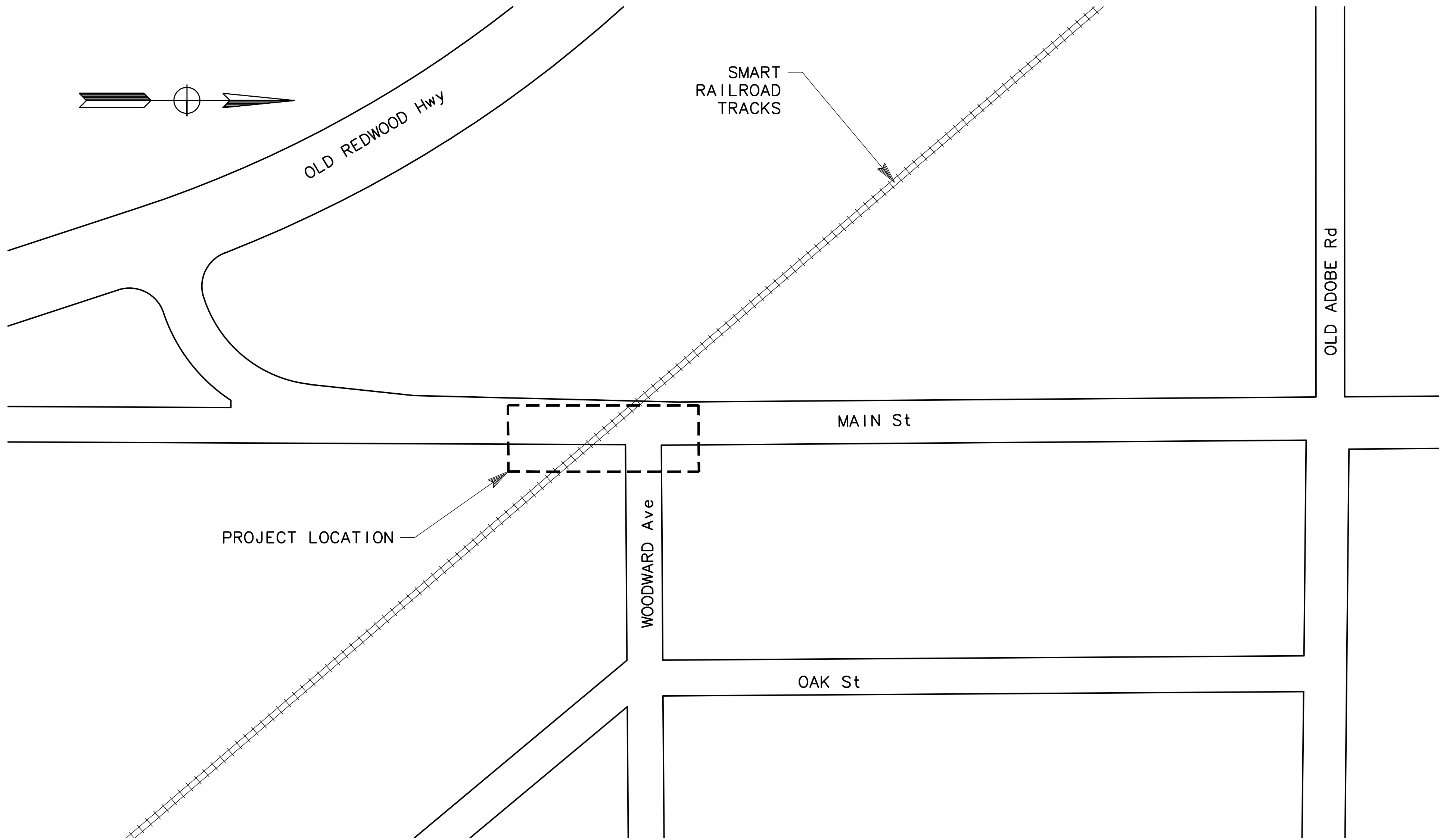


INDEX OF DRAWINGS:

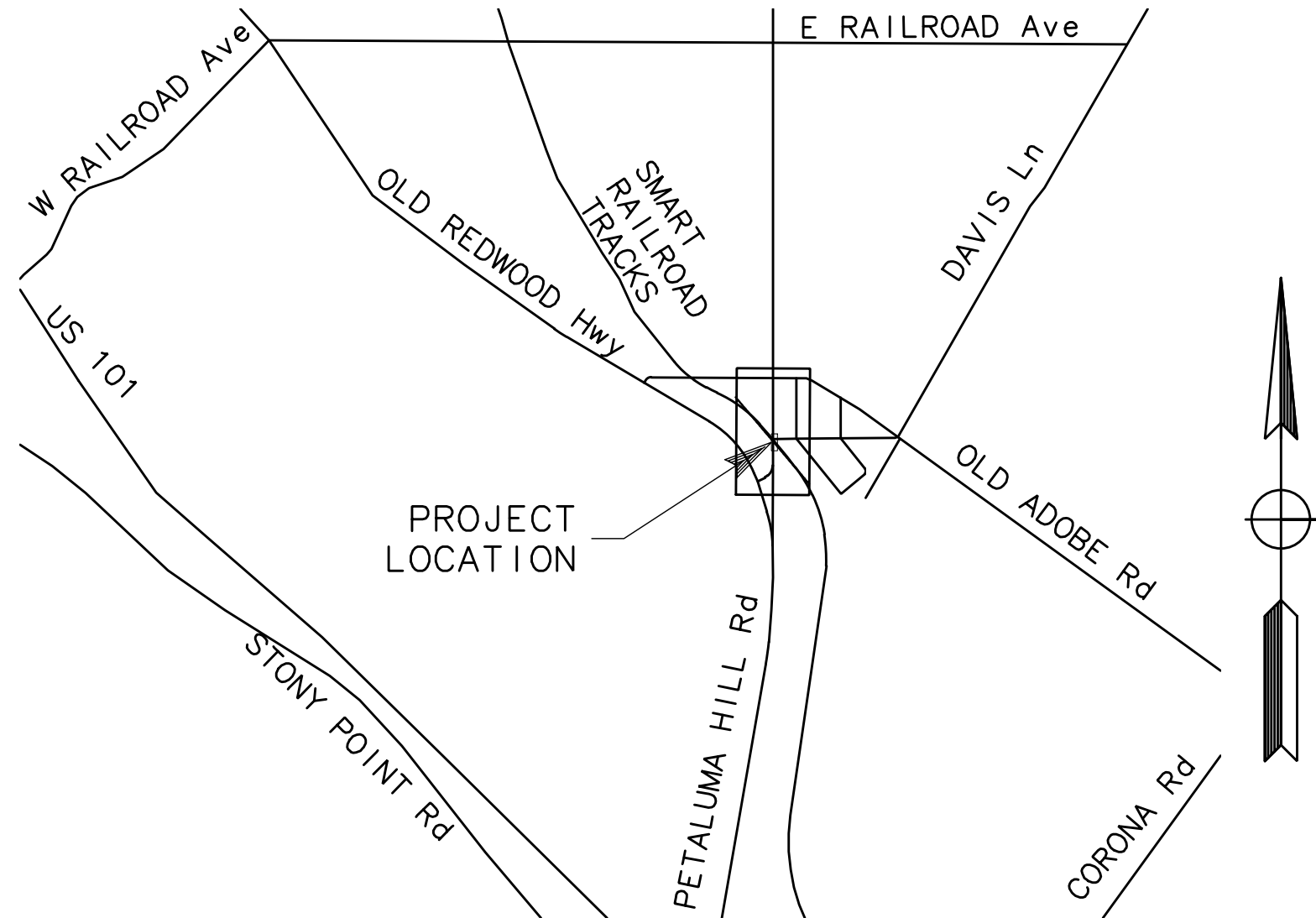
1	T-1	TITLE SHEET
2	G-1	GENERAL NOTES
3	SD-1	SURVEY CONTROL DIAGRAM
4	DM-1	DEMOLITION PLAN
5	L-1	LAYOUT
6-7	CD-1 TO CD-2	CONSTRUCTION DETAILS
8	PD-1	PAVEMENT DELINEATION PLAN
9	CG-1	SITE PLAN
10	CG-2	LEGEND AND NOTES
11	CG-3	SCHEMATIC CABLE PLAN
12	CG-4	SIGNAL SYSTEM SITE PLAN

SONOMA COUNTY
PENNGROVE QUAD GATE AND
PEDESTRIAN AT GRADE RAILROAD
CROSSING
PROJECT NO. xx-xxxx

100% SUBMITTAL



VICINITY MAP
NO SCALE



LOCATION MAP
NO SCALE

ABBREVIATIONS

AB	AGGREGATE BASE	Lt	LEFT
Abn	ABANDON	Max	MAXIMUM
AC	ASPHALT CONCRETE	Med	MEDIAN
Adj	ADJUST	MH	MANHOLE
AS	AGGREGATE SUBBASE	Min	MINIMUM
Ave	AVENUE	Mod	MODIFIED
BC	BEGIN HORIZONTAL CURVE	Mon	MONUMENT
Beg	BEGIN	MRM	MOUNTABLE RAISED MEDIAN
Blvd	BOULEVARD	MTC	MEDIAN TOP OF CURB
BOW	BACK OF WALK	N	NORTH/NORTHING
BFP	BACK FLOW PREVENTER	No.	NUMBER
BRT	BUS RAPID TRANSIT	OG	ORIGINAL GROUND
BT	BOTTOM ELEVATION	PCC	PORTLAND CEMENT CONCRETE/
CI	CURB INLET		POINT OF COMPOUND CURVE
CL	CENTER LINE	Per f	PERFORATED
CIR	CIRCLE	PID	PERMANENT IDENTIFIER
CI	CLASS	P/L	PROPERTY LINE
Clr	CLEARANCE	PRC	POINT OF REVERSE CURVE
Comm	COMMUNICATION	R	RADIUS
Conc	CONCRETE	RCP	REINFORCED CONCRETE PIPE
Const	CONSTRUCTION	Rd	Road
CR	CURB RAMP	Rel	RELOCATE
CRCP	CONTINUOUS REINFORCED CONCRETE PAVEMENT	Rem	REMOVE
	CURB & GUTTER	Ret	RETAINING
C&G		R/W	RIGHT OF WAY
Δ	DELTA	Rt	RIGHT
DI	DRAINAGE INLET	SC	SAWCUT
Dia	DIAMETER	SD	STORM DRAIN
DR	DRIVE	SDMH	STORM DRAIN MANHOLE
Dwy	DRIVEWAY	SQ.	SQUARE
E	EAST/EASTING	SS	SANITARY SEWER
EA	EACH	SSBM	STRAP AND SADDLE
EC	END HORIZONTAL CURVE		BRACKET METHOD
Elev	ELEVATION	SSMH	SANITARY SEWER MANHOLE
Elec	ELECTRICAL	St	STREET
EP	EDGE OF PAVEMENT	Std	STANDARD
ES	EDGE OF SHOULDER	SW	SIDEWALK
ETW	EDGE OF TRAVELED WAY	T	TANGENT/THICKNESS
Exist	EXISTING	TC	TOP OF CURB
FG	FINISHED GRADE	TD	TOP OF DIKE
FH	FIRE HYDRANT	Tele	TELEPHONE
FL	FLOW LINE	Temp	TEMPORARY
FOW	FACE OF WALK	TG	TOP OF GRATE
GB	GRADE BREAK	Typ	TYPICAL
H	HEIGHT	Var	VARIES
HMA	HOT MIX ASPHALT	w/	WITH
HP	HIGH POINT	W	WEST/WATER
Hwy	HIGHWAY	WM	WATER METER
INV	INVERT	XW	CROSSWALK
L	LENGTH		
LIP	LIP OF GUTTER		
Lne	Lane		
LP	LOW POINT		
LS	LANDSCAPE STRIP		

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.

Underground Service Alert

Call: TOLL FREE 1-800 642-2444

TWO WORKING DAYS BEFORE YOU DIG

Date	Revision	By

SCALE	AS NOTED
DATE	11/09/2018
JOB NO.	CC-16101
DRAWING NUMBER	

PENNGROVE QUAD GATES
MAIN STREET, PENNGROVE
SONOMA COUNTY

TITLE SHEET

MARK THOMAS

3000 OAK ROAD, SUITE 650
WALNUT CREEK, CA 94597
(925) 938-0383

REGISTERED PROFESSIONAL ENGINEER
P. O'KEEFE
NO 7792
CIVIL
STATE OF CALIFORNIA

DESIGNED BY	SO	CHECKED BY	AL	DATE	
DRAWN BY	SO				

T-1

Nov 08, 2018 -- 8:31am

GENERAL :


1. ALL WORK INDICATED SHALL BE ACCOMPLISHED USING NEW MATERIALS, UNLESS OTHERWISE NOTED.
2. OMISSIONS OR CONFLICTS BETWEEN VARIOUS ELEMENTS OF THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND RESOLVED BEFORE PROCEEDING WITH THE WORK.
3. EXISTING CONDITIONS, DIMENSIONS AND ELEVATIONS SHOWN HEREIN HAVE BEEN INFERRED FROM THE AS-BUILT DRAWINGS OF THE PREVIOUS CONSTRUCTION CONTRACTS AND LIMITED TO FIELD INVESTIGATIONS. THE CONTRACTOR SHALL VERIFY ALL EXISTING INFORMATION AND SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE COMMENCING WORK.
4. AS-BUILT DRAWINGS FROM PREVIOUS CONSTRUCTION CONTRACTS FOR THE EXISTING RAIL STATIONS AND SECONDARY STRUCTURES ARE AVAILABLE FOR REFERENCE FROM SONOMA COUNTY.
5. ALL STREET IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT SONOMA COUNTY FACILITIES STANDARDS. ALL WORK AND MATERIALS SPECIFIED AND SHOWN ON THE PLANS WITHIN SONOMA COUNTY RIGHT-OF-WAY MUST CONFORM TO SONOMA COUNTY'S MOST CURRENT STANDARDS AND SPECIFICATIONS. ALL PEDESTRIAN IMPROVEMENTS SHALL CONFORM WITH THE REQUIREMENTS OF TITLE 24 OF THE CALIFORNIA CODE OF REGULATIONS AND THE AMERICAN DISABILITIES ACT. THE IMPROVEMENTS ARE SUBJECT TO THE INSPECTION AND APPROVAL OF SONOMA COUNTY ENGINEERING DIVISION. CONTACT SONOMA COUNTY CONSTRUCTION INSPECTION AT LEAST 2 WORKING DAYS PRIOR TO THE START OF ANY WORK TO ARRANGE FOR INSPECTION.
6. ALL REVISIONS TO THIS PLAN MUST BE REVIEWED BY THE SONOMA COUNTY REPRESENTATIVE PRIOR TO CONSTRUCTION AND SHALL BE ACCURATELY SHOWN ON REVISED PLANS STAMPED AND DISTRIBUTED BY THE SONOMA COUNTY REPRESENTATIVE PRIOR TO ACCEPTANCE OF THE WORK AS COMPLETE.
7. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT, (800) 642-2444, TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION. THE USA AUTHORIZATION NUMBER SHALL BE KEPT AT THE JOB SITE.
8. CONTRACTOR SHALL PROTECT EXISTING STRUCTURES, FACILITIES, SIGNAGES, FINISHES, UTILITIES, FIXTURES, DEVICES AND EQUIPMENTS NOT DESIGNATED FOR CONSTRUCTION. CONTRACTOR SHALL REPAIR AND/OR RESTORE TO PRE-CONSTRUCTION CONDITIONS ALL ELEMENTS DAMAGED OR IMPACTED BY THE CONSTRUCTION ACTIVITIES.
9. PRIOR TO PLACING CURB, SIDEWALK, ASPHALT CONCRETE, SUB-BASE, OR BASE MATERIAL, ALL UNDERGROUND UTILITIES WITHIN THE RIGHT-OF-WAY SHALL BE INSTALLED, BACKFILL COMPLETED, AND THE SONOMA COUNTY CONSTRUCTION DIVISION NOTIFIED BY EACH OF THE UTILITY COMPANIES HAVING FACILITIES WITHIN THE WORK AREA THAT THE UTILITY INSTALLATION HAS SATISFACTORILY PASSED ACCEPTANCE TESTS.
10. WHEN WIDENING THE PAVEMENT ON AN EXISTING ROAD, THE EXISTING PAVEMENT SHALL BE CUT TO A NEAT LINE AND REMOVED TO AN EXISTING ADEQUATE STRUCTURAL SECTION, OR TO THE ORIGINAL ROAD SECTION. AN EXPLORATORY TRENCH, OR POTHOLING, MAY BE REQUIRED TO DETERMINE THE LIMITS OF PAVEMENT REMOVAL.
11. SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
12. ALL TREES WITHIN PROJECT LIMITS IN CONFLICT WITH IMPROVEMENTS SHALL BE REMOVED. TREES NOT WITHIN PROJECT LIMITS SHALL REMAIN UNLESS OTHERWISE NOTED. IF ANY TREES ARE TO BE REMOVED, THE PLANS MUST BE REVIEWED AND ACKNOWLEDGED BY THE SONOMA COUNTY LANDSCAPE DEPARTMENT. ALL TREES CONFLICTING WITH GRADING, UTILITIES, OR OTHER IMPROVEMENTS, OR OVERHANGING THE SIDEWALK OR PAVEMENT SO AS TO FORM A NUISANCE OR HAZARD, SHALL BE TRIMMED, PROPERLY TREATED AND SEALED.

13. BEFORE COMMENCING WORK AT THE JOB SITE, THE CONTRACTOR SHALL SUBMIT WORK PLANS. FURTHERMORE, FOR WORK THAT MAY AFFECT THE SONOMA COUNTY OPERATING SYSTEM, THE CONTRACTOR SHALL SUBMIT A SITE SPECIFIC WORK PLAN. ITEMS THAT ARE REQUIRED TO BE TEMPORARILY RELOCATED PRIOR TO CONSTRUCTION AND REINSTALLED AFTER CONSTRUCTION ARE NOT SHOWN IN THE CONTRACT DOCUMENTS. CONTRACTOR IS REQUIRED TO INCLUDE THESE ITEMS IN ITS CONSTRUCTION WORK PLANS AND SUBMIT TO SONOMA COUNTY FOR APPROVAL PRIOR TO CONSTRUCTION.
14. PRIOR TO ANY FABRICATION OR INSTALLATION OF "NEW WORK", RELOCATION OF EXISTING STRUCTURES, SIGNAGES, FACILITIES, UTILITIES AND EQUIPMENT, THE CONTRACTOR SHALL PERFORM A COMPREHENSIVE SURVEY TO VERIFY EXISTING INFORMATION AT THE JOB SITE.
15. TEMPORARY SILT AND DRAINAGE CONTROL FACILITIES SHALL BE INSTALLED TO CONTROL AND CONTAIN EROSION-CAUSED SILT DEPOSITS AND TO PROVIDE FOR THE SAFE DISCHARGE OF STORM WATERS INTO EXISTING STORM WATER FACILITIES. DESIGN OF THESE FACILITIES MUST BE APPROVED BY SONOMA COUNTY AND IN IN PLACE PRIOR TO THE START OF GRADING.
16. ALL TRAFFIC STRIPING AND MARKINGS SHALL BE THERMOPLASTIC UNLESS THE PLANS DESIGNATE THE USE OF "TRAFFIC PAINT".
17. ALL STRIPING ON MAJOR ROADS SHALL BE CAT-TRACKED PRIOR TO FINAL INSTALLATION. FINAL INSTALLATION OF STRIPING WILL BE ALLOWED ONLY AFTER APPROVAL OF THE STRIPING LAYOUT BY THE ENGINEER.
18. THE CONTRACTOR IS RESPONSIBLE FOR PRESERVATION AND/OR PERPETUATION OF ALL EXISTING MONUMENTS, WHICH CONTROL SUBDIVISIONS, TRACTS, STREETS, OR HIGHWAYS, OR PROVIDE SURVEY CONTROL, WHICH WILL BE DISTURBED OR REMOVED DUE TO CONTRACTORS' WORK. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF TEN (10) WORKING DAYS NOTICE TO PROJECT ENGINEER/SURVEY OR PRIOR TO DISTURBANCE OR REMOVAL OF EXISTING MONUMENTS. PROJECT ENGINEER/SURVEYOR SHALL COORDINATE WITH THE CONTRACTOR TO RESET MONUMENTS OR PROVIDE PERMANENT WITNESS MONUMENTS AND FILE THE REQUIRED DOCUMENTATION WITH THE COUNTY SURVEYOR PER BUSINESS AND PROFESSIONS CODE SECTION 8771.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE SECURITY OF THE JOB SITE. WHERE EXISTING SECURITY BARRIERS, INCLUDING RAILINGS, GRILLES, FENCES, GATES OR WALLS ARE REMOVED OR BECOME INOPERATIVE DUE TO CONTRACTOR'S OPERATIONS, TEMPORARY PROVISIONS SIMILAR/EQUIVALENT TO THE EXISTING SECURITY PROVISIONS SHALL BE MADE, AS APPROVED BY THE ENGINEER.
20. OBSTRUCTIONS INDICATED ARE FOR INFORMATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND DEPTH OF ALL OBSTRUCTIONS WITH THE APPROPRIATE AGENCY. NEITHER THE OWNER NOR THE ENGINEER ASSUMES RESPONSIBILITY THAT THE OBSTRUCTIONS INDICATED WILL BE THE OBSTRUCTIONS ENCOUNTERED. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (800) 642-2444 TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION.
21. CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGMEN AND OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY. SHOULD THE CONTRACTOR FAIL TO PROVIDE THE NECESSARY SAFETY DEVICES, AND THEY ARE PROVIDED BY SONOMA COUNTY THE CONTRACTOR SHALL PAY SONOMA COUNTY TIME AND MATERIAL COSTS FOR PROVIDING.
22. IF ARCHAEOLOGICAL MATERIALS ARE UNCOVERED DURING GRADING, TRENCHING, OR OTHER EXCAVATION; EARTHWORK WITHIN 100 FEET OF THESE MATERIALS SHALL BE STOPPED UNTIL A PROFESSIONAL ARCHAEOLOGIST WHO IS CERTIFIED BY THE SOCIETY OF CALIFORNIA ARCHAEOLOGY (SCA) AND/OR THE SOCIETY OF PROFESSIONAL ARCHAEOLOGY (SOPA) HAS HAD AN OPPORTUNITY TO EVALUATE THE SIGNIFICANCE OF THE FIND AND SUGGEST APPROPRIATE MITIGATION MEASURES, IF THEY ARE DEEMED NECESSARY.
23. CONTRACTOR SHALL PROVIDE FOR INGRESS AND EGRESS TO PRIVATE PROPERTY ADJACENT TO WORK THROUGHOUT THE PERIOD OF CONSTRUCTION.

24. CONTRACTOR SHALL PROVIDE AND MAINTAIN ADEQUATE SANITARY FACILITIES (PUBLIC AND SONOMA COUNTY COMPLIANT) AT THE SITE DURING ALL PHASES OF CONSTRUCTION.
25. NO WORK SHALL BE PERFORMED WITHOUT INSPECTION BY SONOMA COUNTY. IF ANY WORK THAT REQUIRES INSPECTION MUST BE PERFORMED OUTSIDE OF NORMAL WORKING HOURS, CONTRACTOR SHALL SUBMIT A WRITTEN REQUEST FOR INSPECTION SERVICES TO THE SONOMA COUNTY REPRESENTATIVE 2 WORKING DAYS IN ADVANCE OF THE TIME SUCH SERVICES WILL BE REQUIRED.
26. SILT AND EROSION CONTROL PLANS ARE REQUIRED FOR WORK YEAR-ROUND. SEDIMENT CONTROL BMP'S SHALL BE IMPLEMENTED YEAR-ROUND.
27. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS AND CONDITIONS BEFORE ORDERING AND FABRICATING ALL MATERIALS.
28. CONTRACTOR SHALL COORDINATE THESE DRAWINGS, DRAWINGS FROM OTHER DISCIPLINES, AND SONOMA COUNTY STANDARDS AND PREPARE SHOP DRAWINGS FOR ALL CONCRETE WORK. THIS INCLUDES JOINT LOCATIONS AND TYPES, REINFORCING BAR LAYOUT AND FABRICATION DETAILS AND ALL OTHER MISCELLANEOUS FABRICATION DETAILS. CONTRACTOR SHALL SUBMIT THESE SHOP DRAWINGS TO THE ENGINEER FOR REVIEW AND APPROVAL BEFORE PURCHASE OR FABRICATION.
29. PRIOR TO PERFORMING WORK WITHIN 10 FEET OF SONOMA COUNTY'S RIGHT-OF-WAY, CONTRACTOR SHALL OBTAIN SONOMA COUNTY PERMITS, INCLUDING RESTRICTED ACCESS PERMIT (RAP) AND CONSTRUCTION ACCESS PERMIT (CAP) AS REQUIRED. CONTRACTOR TO COMPLY WITH RAP AND CAP REQUIREMENTS, INCLUDING FEES, TRAINING, AND BACKGROUND SECURITY CHECKS.

EARTHWORK SUMMARY				
LOCATION	VOLUME (CY)			
	EXCAVATION	EMBANKMENT	EXPORT	NET
"M" 5+03.00 -- 5+50.00	3	18	0	15
"M" 5+50.00 -- 6+08.45	5	5	0	0
TOTAL	8	23	0	15

G -1

<div>NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE. Underground Service Alert Call: TOLL FREE 1-800 642-2444  TWO WORKING DAYS BEFORE YOU DIG</div>	Date	Revision	By	SCALE NO SCALE
				DATE 11/09/2018
				JOB NO. CC-16101
				DRAWING NUMBER
				2 OF 12

FOR REDUCED PLANS, THE ORIGINAL SCALE IS IN INCHES

0

1

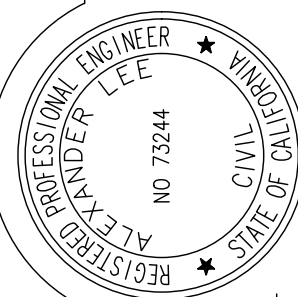
2

3

MARK THOMAS

3000 OAK ROAD, SUITE 650
WALNUT CREEK, CA 94597
(925) 938-0383



DESIGNED BY SO	CHECKED BY AL	DRAWN BY SO	DATE
			
ENGINEER, R.C.E. NO. 73244			

PENNGROVE QUAD GATES
MAIN STREET, PENNGROVE
SONOMA COUNTY

GENERAL NOTES

NOTE:

1. CONTRACTOR SHALL COMPLY WITH CALIFORNIA BUSINESS AND PROFESSIONS CODE SECTION 8771 (b) REGARDING REFERENCING, PRESERVING, AND RECONSTRUCTING MONUMENTS, WHETHER OR NOT MONUMENTS ARE SHOWN IN THESE PLANS.
2. ALL REFERENCES TO UTILITIES, IMPROVEMENTS, STRUCTURES, BUILDINGS, PARKING, EASEMENTS, SERVITUDES, AND ENCROACHMENTS: ARE BASED SOLELY ON ABOVE GROUND, VISIBLE EVIDENCE, UNLESS ANOTHER SOURCE OF INFORMATION IS SPECIFICALLY REFERENCED HEREON.
3. THE RIGHT-OF-WAY SHOWN HEREON IS A PRODUCT OF RECORD MAPS ROTATED ON TO FOUND MONUMENTS, AND SHOULD NOT BE RELIED UPON AS DEFINITIVE. THE FIELD SURVEY WAS RESTRICTED TO MONUMENTS THAT WOULD ORIENT RECORD DATA. THESE LINES MAY CHANGE UPON COMPLETION OF A BOUNDARY SURVEY.
4. PROPERTY LINES SHOWN HEREON ARE A GIS PRODUCT AND ARE PRELIMINARY IN NATURE, BASED UPON PUBLICLY AVAILABLE RECORDS. THEY SHOULD NOT BE RELIED UPON AS DEFINITIVE AND DO NOT REPRESENT A BOUNDARY SURVEY.

LEGEND:

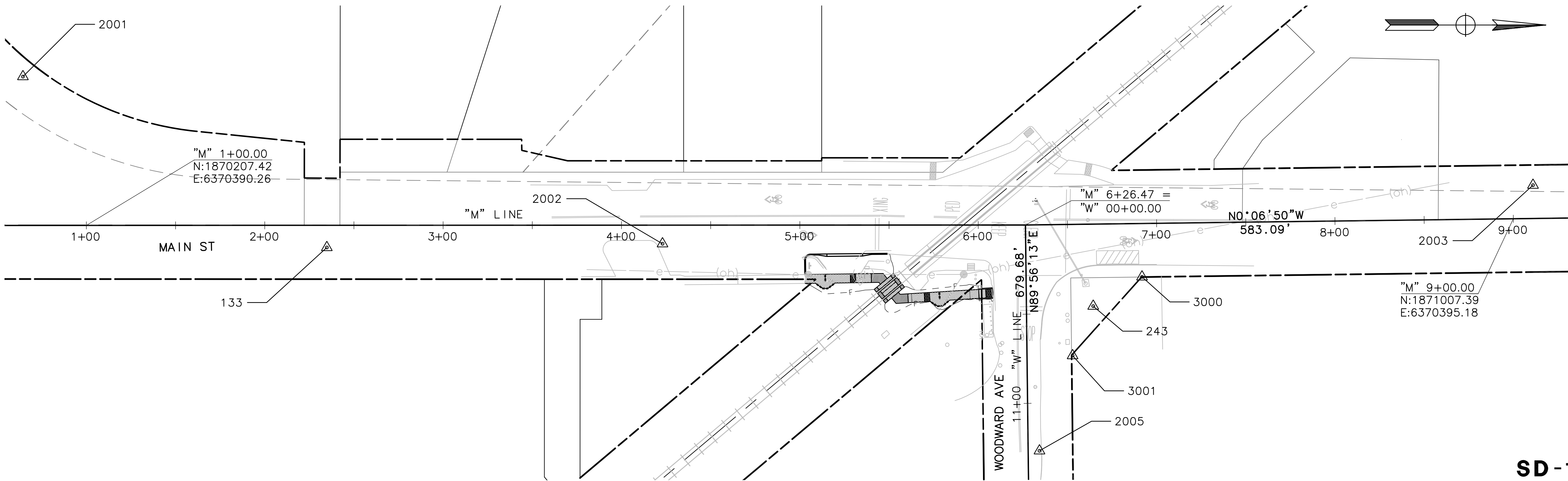
△ CONTROL POINT

BASIS OF BEARINGS:

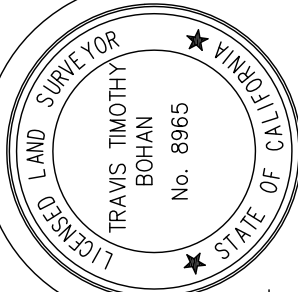
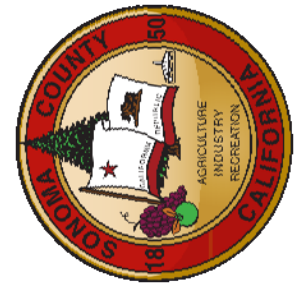
CALIFORNIA COORDINATE SYSTEM, CCS83, EPOCH 2009.00 AS SHOWN ON RECORD OF SURVEY OF THE SMART PROJECT CONTROL IN BOOK 741 OF MAPS AT PAGES 1-24.

CONTROL POINTS				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
133	1870345.83	6370416.83	67.75	PENNGROVE
242	1870115.19	6370348.46	67.87	SMART 242
243	1870775.10	6370454.36	77.81	SMART 243
286	1942917.67	6341237.24	138.03	SMART 286
287	1943627.79	6341325.41	137.81	SMART 287

CONTROL POINTS				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
2001	1870176.50	6370319.18	67.65	PID #1
2002	1870534.03	6370416.78	68.44	PID #2
2003	1871022.36	6370389.21	88.81	PID #3
2004	1871479.78	6370388.10	86.51	PID #4
2005	1870744.10	6370535.13	81.74	PID #5
2011	1942250.33	6341298.65	138.84	PID #1 MAG
2012	1942678.85	6341119.82	135.11	PID #2 MAG
2013	1942623.74	6341290.67	137.37	PID #3 MAG
2014	1942957.52	6341330.69	137.48	PID #4 MAG
2015	1943101.52	6341245.78	137.85	PID #5 MAG
3000	1870802.63	6370438.24	78.36	SVIP-FND
3001	1870763.23	6370481.98	78.34	SVIP-FND
3002	1870655.05	6370819.02	97.42	SVRB-FND
3003	1870739.58	6371462.78	98.14	SVMO-FND
3004	1869255.72	6370509.72	71.24	SVMO-FND



MARK THOMAS
3000 OAK ROAD, SUITE 650
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(925) 938-0383



DESIGNED BY
SQ
CHECKED BY
AL

PENNGROVE QUAD GATES
MAIN STREET, PENNGROVE
SONOMA COUNTY

SURVEY CONTROL DIAGRAM

SD-1

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.
Underground Service Alert
Call: TOLL FREE
1-800
642-2444
TWO WORKING DAYS BEFORE YOU DIG

Date	Revision	By

SCALE
1" = 50'
DATE
11/09/2018
JOB NO.
CC-16101
DRAWING NUMBER
3 OF 12

NO SCALE

FOR REDUCED PLANS, THE ORIGINAL SCALE IS IN INCHES

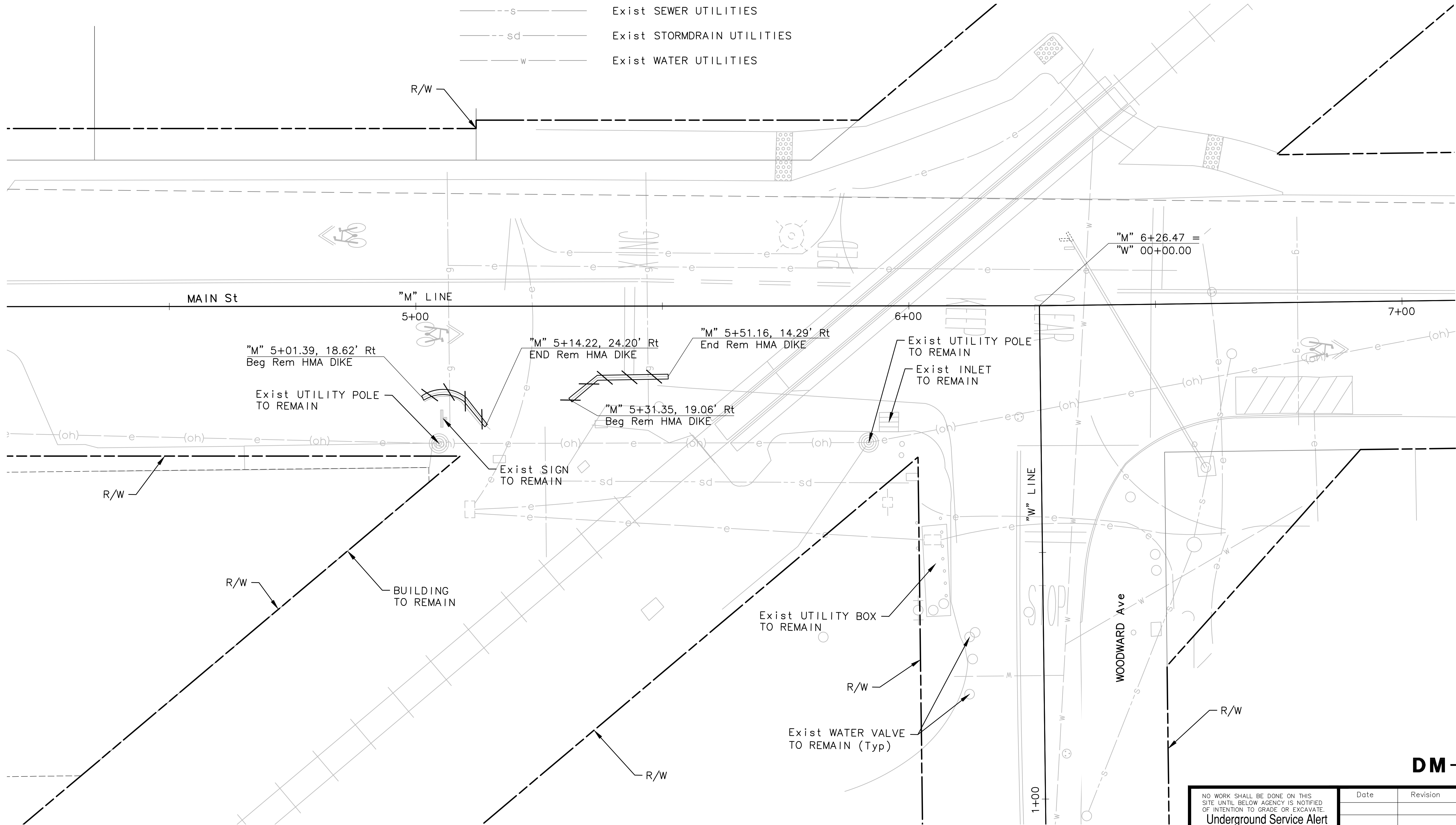
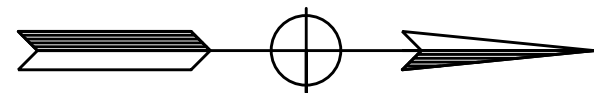


NOTES:

1. ALL DISTANCES SHOWN ARE APPROXIMATE. VERIFY MEASUREMENTS IN FIELD.
2. FOR ABBREVIATIONS, SEE SHEET T-1.
3. CONTRACTOR SHALL POSITIVELY IDENTIFY AND LOCATE ALL UTILITIES BEFORE ANY DEMOLITION WORK.

LEGEND:

- HMA DIKE TO BE REMOVED
- Exist OVERHEAD ELECTRICAL UTILITIES
- Exist ELECTRICAL UTILITIES
- Exist NATURAL GAS UTILITIES
- Exist SEWER UTILITIES
- Exist STORMDRAIN UTILITIES
- Exist WATER UTILITIES



DM-1

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Underground Service Alert

Call: TOLL FREE 1-800 642-2444

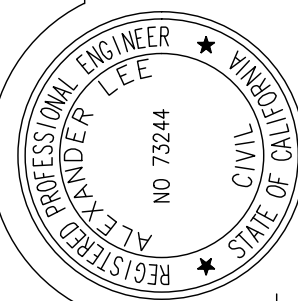
TWO WORKING DAYS BEFORE YOU DIG

Date	Revision	By

SCALE 1" = 10'
DATE 11/09/2018
JOB NO. CC-16101
DRAWING NUMBER
4 OF 12

PENNGROVE QUAD GATES
MAIN STREET, PENNGROVE
SONOMA COUNTY

DEMOLITION PLAN



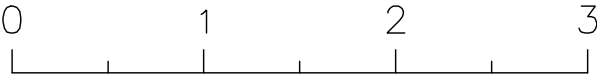
DRAWN BY SQ

DESIGNED BY SQ
CHECKED BY AL

ENGINEER, R.C.E. NO. 73244

MARK THOMAS
3000 OAK ROAD, SUITE 650
WALNUT CREEK, CA 94597
(925) 938-0383

Nov 08, 2018 - 8:29am

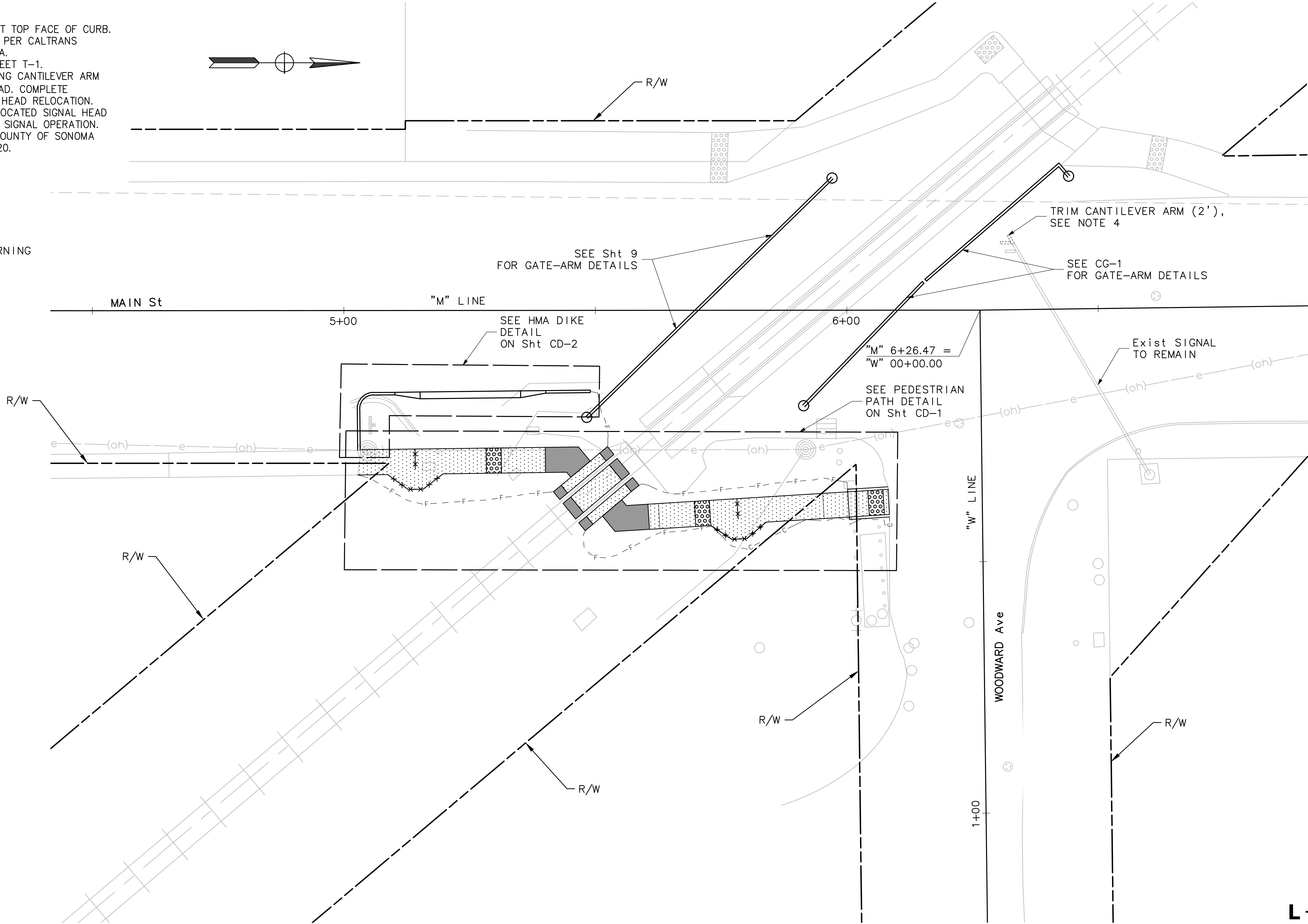


NOTES:

1. ALL CURB LOCATIONS ARE AT TOP FACE OF CURB.
2. CURB RAMPS SPECIFIED ARE PER CALTRANS STANDARD PLANS RSP A88A.
3. FOR ABBREVIATIONS, SEE SHEET T-1.
4. CONTRACTOR TO TRIM EXISTING CANTILEVER ARM BY 2'. RELOCATE SIGNAL HEAD. COMPLETE REWIRING WORK FOR SIGNAL HEAD RELOCATION. CONTRACTOR TO REWIRE RELOCATED SIGNAL HEAD AS NECESSARY FOR PROPER SIGNAL OPERATION.
5. FOR SIDEWALK DETAIL SEE COUNTY OF SONOMA CONSTRUCTION STANDARD 220.

LEGEND:

- CONCRETE SW
- DETECTABLE WARNING SURFACE
- HMA
- F--- LIMIT OF FILL
- C--- LIMIT OF CUT
- ***** FENCE (3')



L-1

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Underground Service Alert

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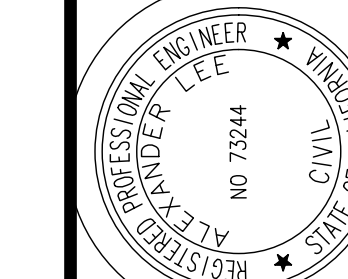
TWO WORKING DAYS BEFORE YOU DIG

Date	Revision	By

SCALE 1" = 10'
DATE 11/09/2018
JOB NO. CC-16101
DRAWING NUMBER
5 OF 12

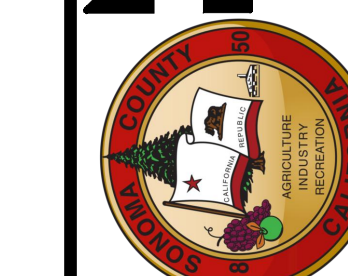
PENNGROVE QUAD GATES
MAIN STREET, PENNGROVE
SONOMA COUNTY

LAYOUT



DESIGNED BY SQ
CHECKED BY AL

DRAWN BY SQ

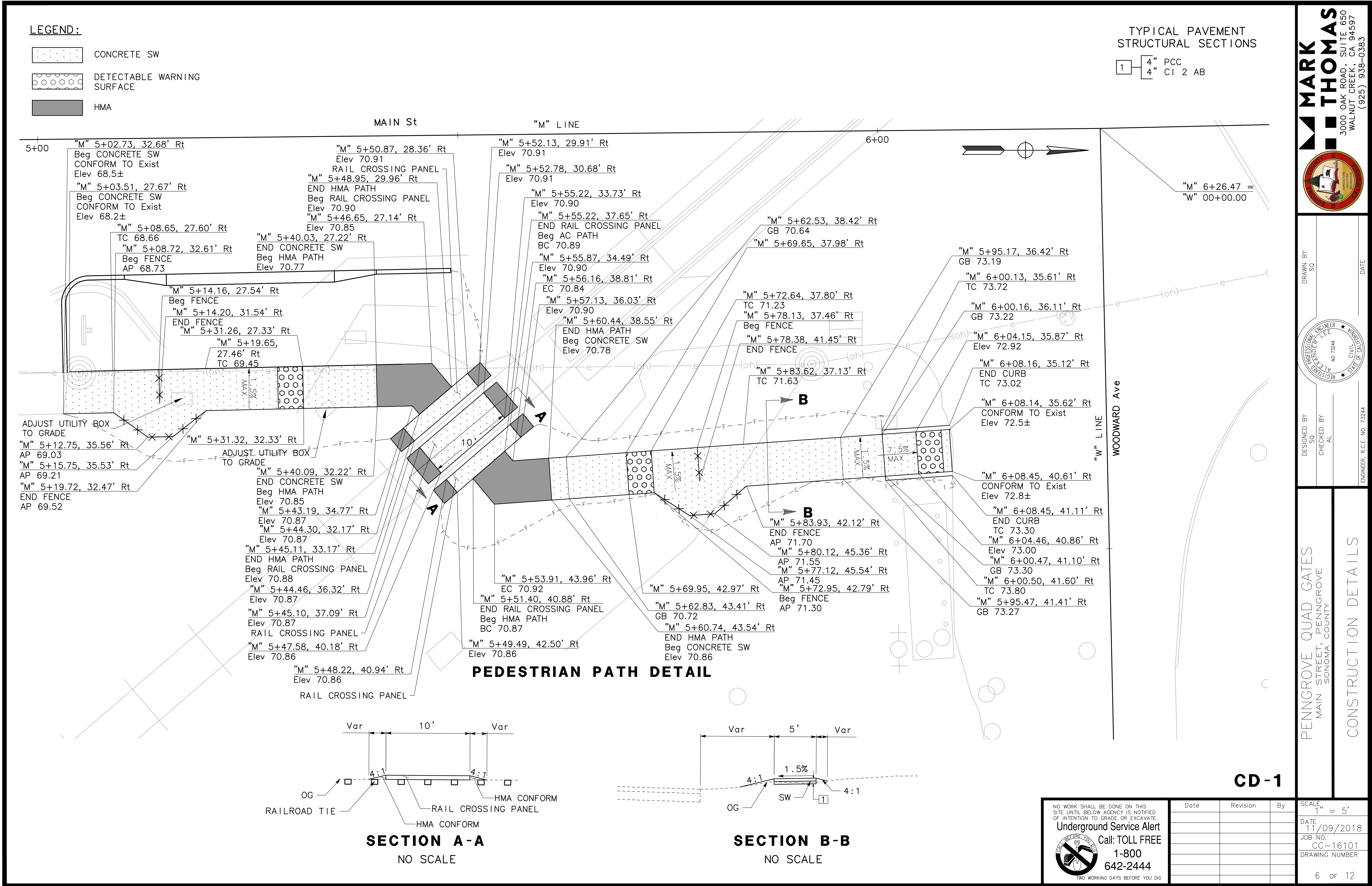


MARK THOMAS
3000 OAK ROAD, SUITE 650
WALNUT CREEK, CA 94597
(925) 938-0383

Nov 08, 2018 - 10:06am

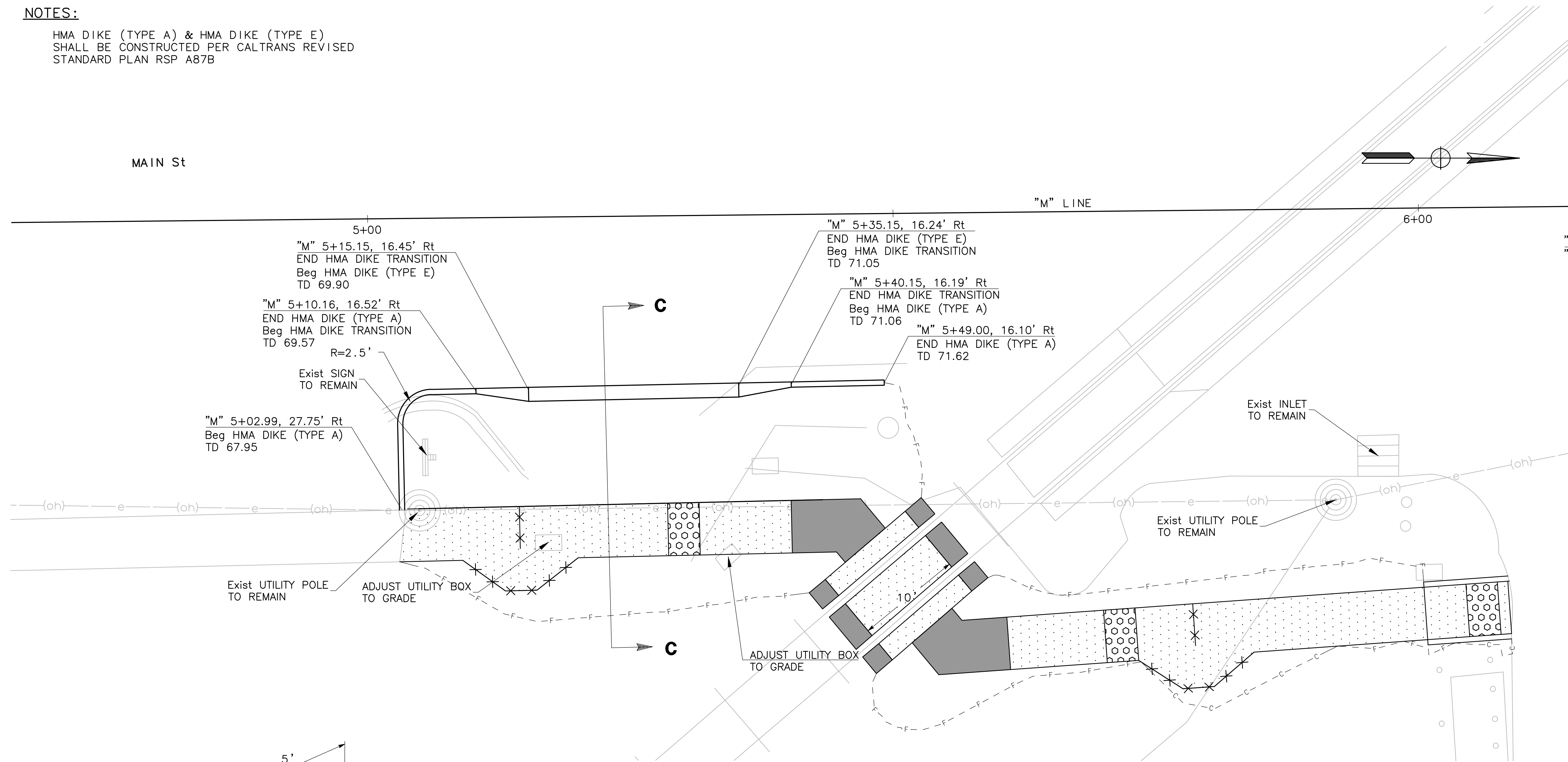


Nov 08, 2018 - 10:06am

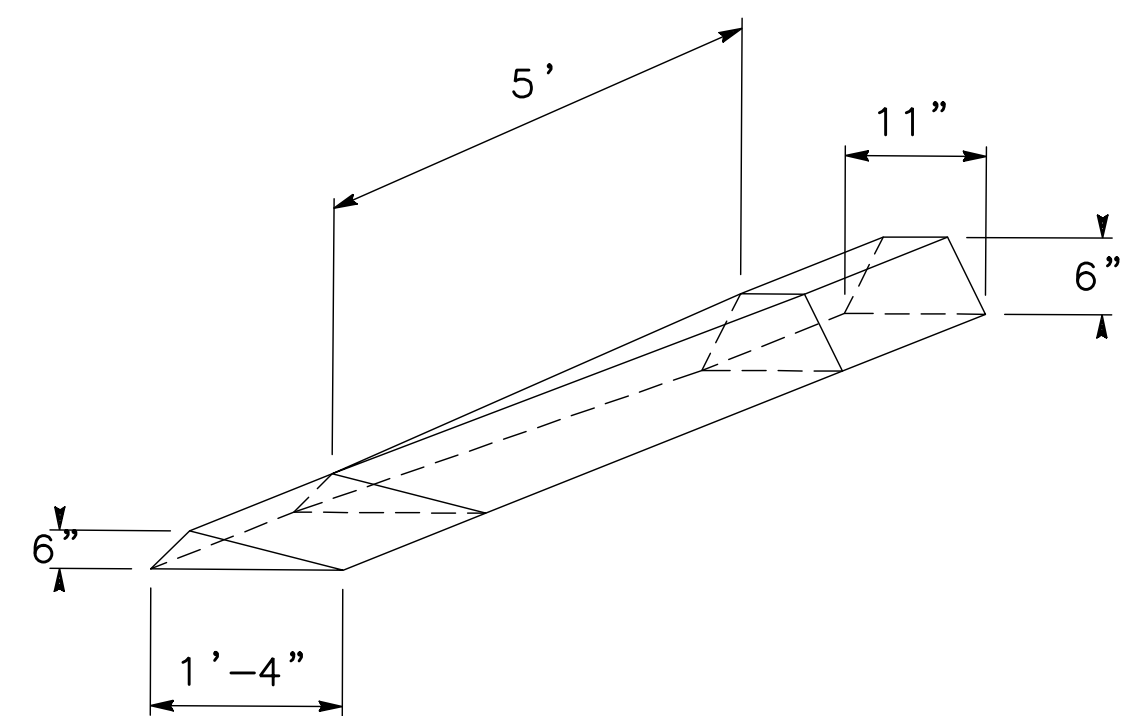


NOTES:

HMA DIKE (TYPE A) & HMA DIKE (TYPE E)
SHALL BE CONSTRUCTED PER CALTRANS REVISED
STANDARD PLAN RSP A87B

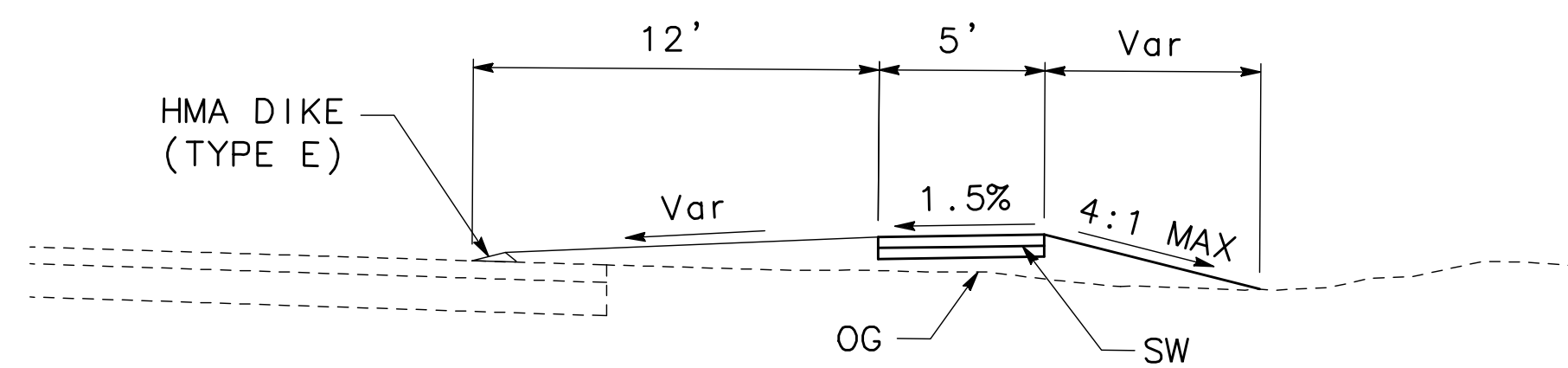


HMA DIKE DETAIL



**HMA DIKE TRANSITION DETAIL
(TYPE E/TYPE A)**

NO SCALE



SECTION C-C

NO SCALE

CD-2

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642-2444

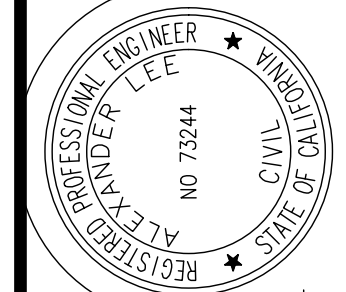
TWO WORKING DAYS BEFORE YOU DIG

Date	Revision	By

SCALE, 1" = 5'
DATE 11/09/2018
JOB NO. CC-16101
DRAWING NUMBER 7 OF 12

PENNGROVE QUAD GATES
MAIN STREET, PENNGROVE
SONOMA COUNTY

CONSTRUCTION DETAILS



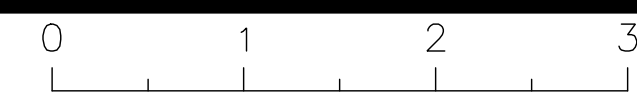
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CHECKED BY AL

ENGINEER, R.C.E. NO. 73244

DRAWN BY SQ

DATE

MARK THOMAS
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(925) 938-0383



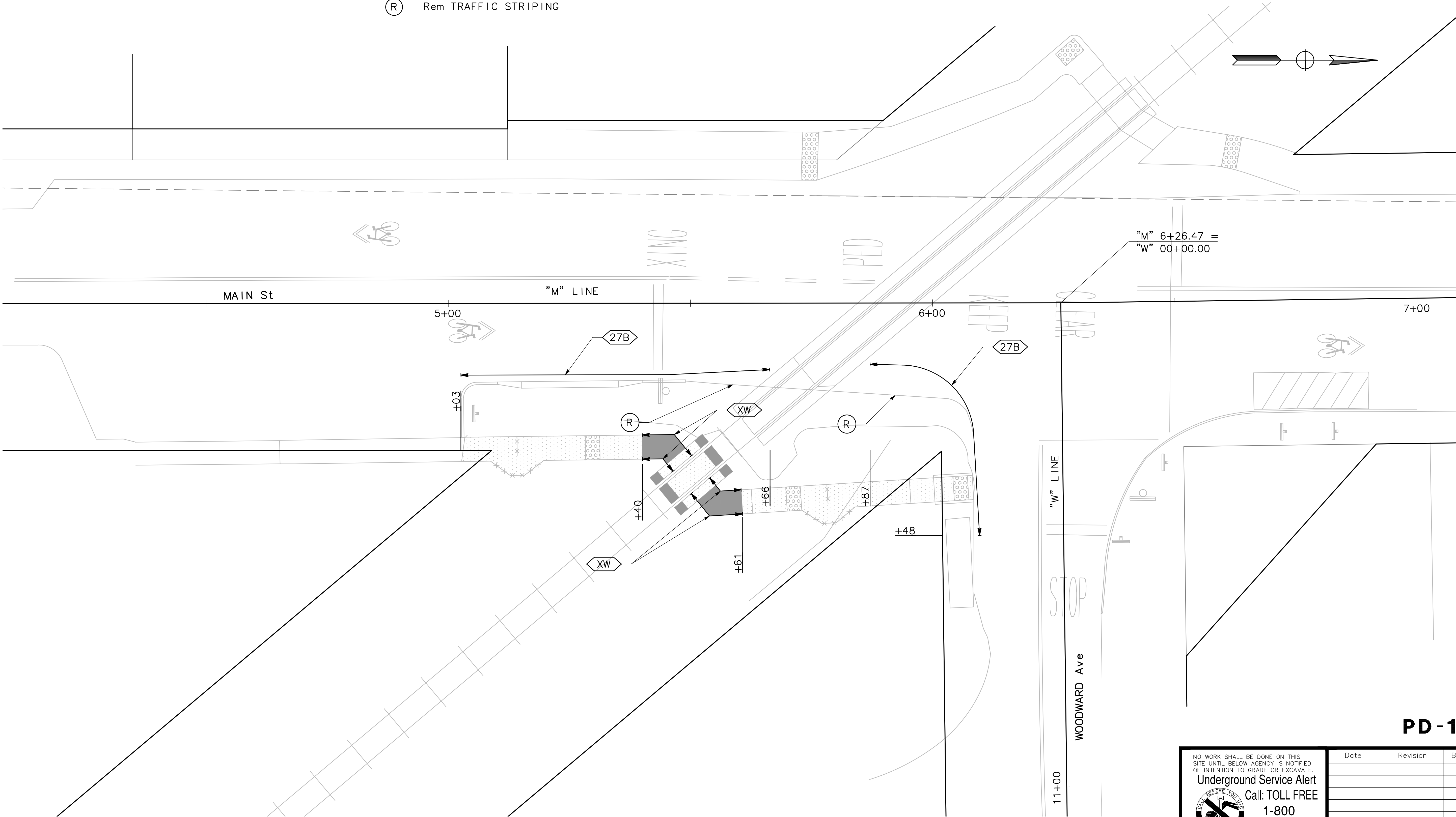
Nov 08, 2018 - 8:55am

NOTES:

- 1. ALL SIGNS SHALL REMAIN DURING CONSTRUCTION UNLESS OTHERWISE NOTED.
- 2. THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING MATERIALS.
- 3. ALL SIGN CODES ARE FEDERAL SIGN CODES UNLESS OTHERWISE DESIGNATED AS CALIFORNIA SIGN CODES.

LEGEND:

- EXISTING ROADSIDE SIGN (ONE POST)
- EXISTING SSBM SIGN
- PAVEMENT DELINEATION DETAIL
- CROSSWALK AND LIMIT LINE PER CALTRANS Std PLANS A24E
- Rem TRAFFIC STRIPING



PD-1

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.

Underground Service Alert

Call: TOLL FREE
1-800
642-2444

DO NOT WORK WITHOUT THIS

UNDERGROUND SERVICE ALERT

TWO WORKING DAYS BEFORE YOU DIG

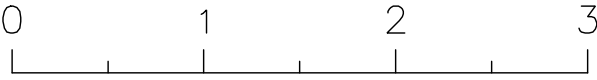
Date	Revision	By

SCALE
1" = 10'

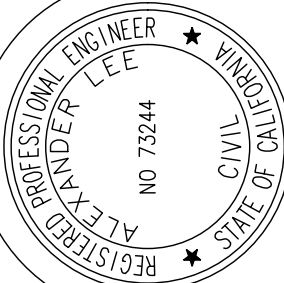
DATE
11/09/2018

JOB NO.
CC-16101

DRAWING NUMBER
8 OF 12



MARK THOMAS
3000 OAK ROAD, SUITE 650
WALNUT CREEK, CA 94597
(925) 938-0383

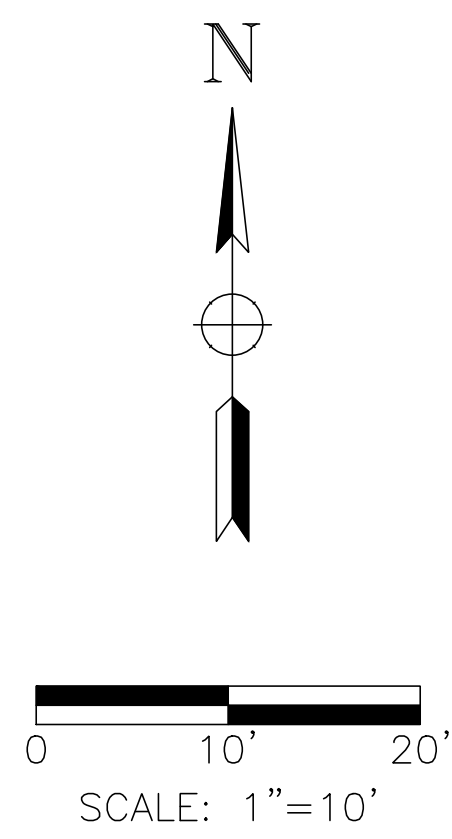
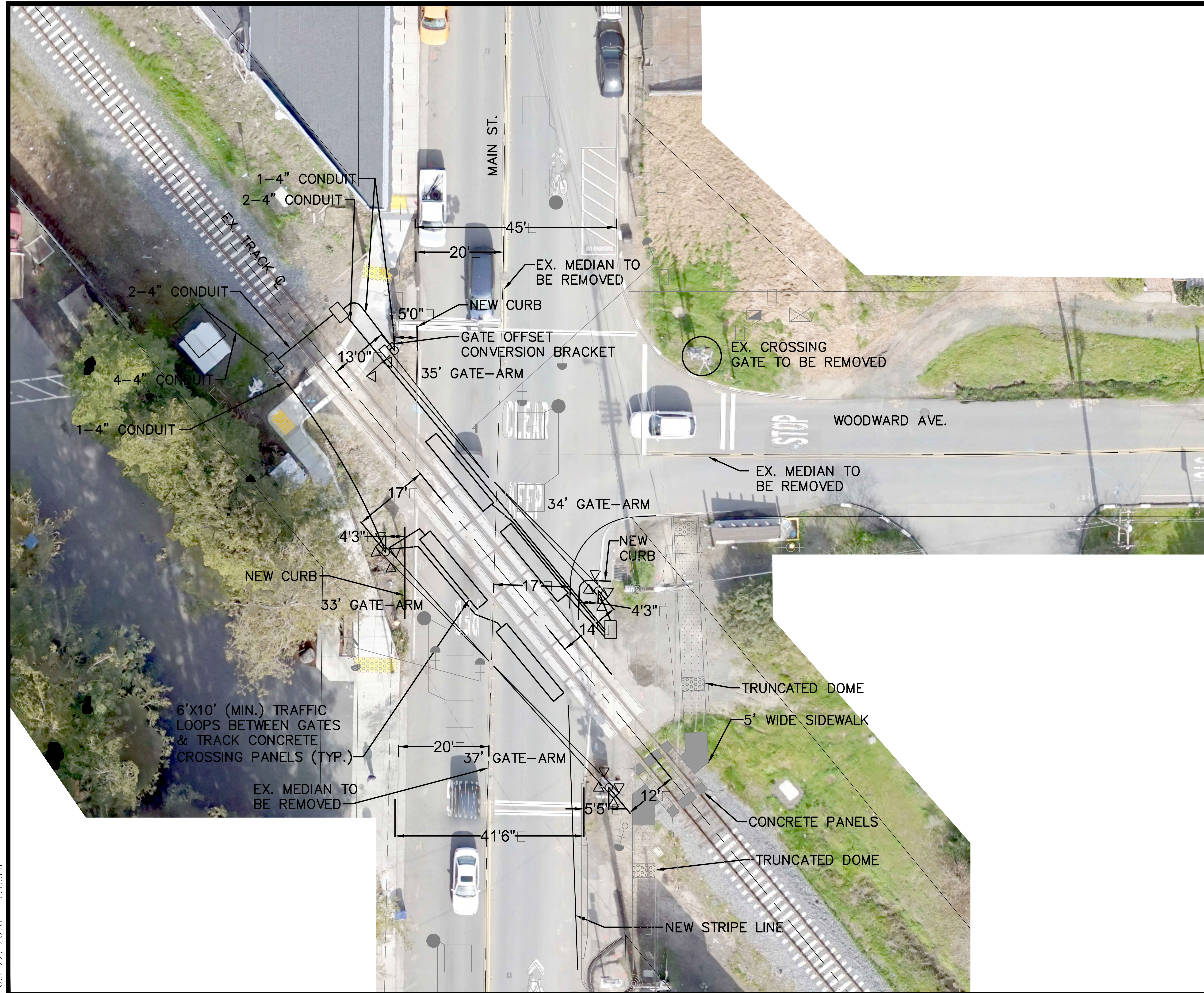


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SQ
CHECKED BY
AL
ENGINEER, R.C.E. NO. 73244

PENNGROVE QUAD GATES
MAIN STREET, PENNGROVE
SONOMA COUNTY
PAVEMENT DELINEATION PLAN

SCALE
1" = 10'
DATE
11/09/2018
JOB NO.
CC-16101
DRAWING NUMBER
8 OF 12

Oct 22, 2018 - 7:10am



Date	Revision	By

SCALE: 1"=10'

DATE: 10/12/18

JOB NO. XXXX

DRAWING NUMBER

9 OF 12

DESIGNED BY
SL

CHECKED BY
MC

ENGINEER, R.C.E. NO. E17500

MAIN ST.
PENN GROVE, CA

SITE PLAN



MARK THOMAS LTK

3000 OAK ROAD, SUITE 650
WALNUT CREEK, CA 94597
(925) 938-0383

Oct 22, 2018 - 7:10am



LEGEND			
	WAYSIDE SIGNAL (3 ASPECT)		CROSSING GATE
	ELECTRIC LOCK		CROSSING CANTILEVER
	ELECTRIC LOCK WITH CIRCUIT CONTROLLER		CROSSING FLASHER
	DERAIL		FLASHING LIGHT UNIT
	DERAIL WITH CIRCUIT CONTROLLER		CROSSING PREDICTOR NARROW BAND SHUNT (NBS)
	INSULATED JOINT		GRADE CROSSING PREDICTOR LOOKING SOUTH
	INSULATED END JOINT CIRCUIT TO THE RIGHT		GRADE CROSSING PREDICTOR LOOKING NORTH
	INSULATED END JOINT CIRCUIT TO THE LEFT		BI-DIRECTIONAL CROSSING PREDICTOR
	CENTRAL INSTRUMENT LOCATION (CIL)		GRADE CROSSING
	DUAL CONTROL SWITCH MACHINE		STATION PLATFORM
	VEHICLE DETECTION LOOP		WAYSIDE MILE MARKER
	WAYSIDE SIGNAL		

GENERAL NOTES

- EXISTING FEATURES DEPICTED ON THESE PLANS ARE BASED UPON AVAILABLE TOPOGRAPHIC MAPPING AND PRIOR WORK BY OTHERS. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION AND PROTECTION OF ALL EXISTING BURIED, SURFACE AND OVERHEAD FEATURES.
- FIELD VERIFY ALL PROPOSED WORK TO IDENTIFY POTENTIAL CONFLICTS WITH EXISTING UTILITIES, STRUCTURES AND FACILITIES. REPORT TO THE ENGINEER ANY POTENTIAL CONFLICTS THAT AFFECT THE ABILITY TO COMPLETE THE WORK AS INDICATED.
- GRADE CROSSING GATE/SIGNAL EQUIPMENT AND INSTALLATION SHALL COMPLY WITH CPUC REQUIREMENTS AND THE CALIFORNIA MUTCD.
- CONDUIT AND PULL BOX INSTALLATION SHALL COMPLY WITH SMART STANDARDS AND CONSTRUCTION SPECIFICATIONS.
- CONDUIT AND PULL BOX INSTALLATION SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF CPUC GENERAL ORDER No. 128.
- PULL BOXES SHALL BE POLYMER CONCRETE WITH OPEN BOTTOMS AND HEAVY-DUTY GASKETED COVERS.
- PROVIDE PULL BOX COVERS INSCRIBED WITH "SMART S&C" IN 1" HIGH LETTERING.
- PLACE A 6" MINIMUM LAYER OF COMPACTED DRAINAGE ROCK UNDER EACH PULL BOX AND EXTENDING AN ADDITIONAL 12" BEYOND THE PULL BOX FOOTPRINT.
- ALL CONDUITS SHALL BE PVC SCH 80.
- USE MANUFACTURED SWEEPS AND BENDS FOR CHANGES IN CONDUIT DIRECTION, VERTICALLY AND HORIZONTALLY.
- INSTALL CONDUITS SO THAT THEY DRAIN INTO THE PULL BOXES AT EITHER END, WITH NO INTERMEDIATE LOW POINTS.
- MINIMUM CONDUIT DEPTH IS 3'-0" BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
- SEE TRACKWORK DESIGN FOR ADDITIONAL INFORMATION ON CONDUIT PLACEMENT WITHIN ROADWAY GRADE CROSSINGS.
- INSTALL TRACER TAPE ABOVE ALL CONDUITS.
- INSTALL PULL ROPES IN ALL CONDUITS.
- CONTRACTOR IS RESPONSIBLE FOR FINAL DESIGN OF UTILITY SERVICE CONNECTION AND COORDINATION WITH PG&E AND SMART.
- THERE IS AN ABSOLUTE MINIMUM CLEARANCE OF 10 FEET FROM THE TRACK CENTERLINE AND ANY EQUIPMENT INSTALLED AT THE CROSSING INCLUDING THE WIND GUARD.

MARK THOMAS LTK

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WALNUT CREEK, CA 94597
(925) 938-0383

DRAWN BY
DG

DESIGNED BY
SL

CHECKED BY
MC

ENGINEER, R.C.E. NO. E17500

MAIN STREET GATES,
PENN GROVE CA

LEGEND AND NOTES

Date	Revision	By	SCALE N.T.S.
			DATE 10/12/18
			JOB NO. XXXX
			DRAWING NUMBER
			10 OF 12

Oct 22, 2018 - 7:10am

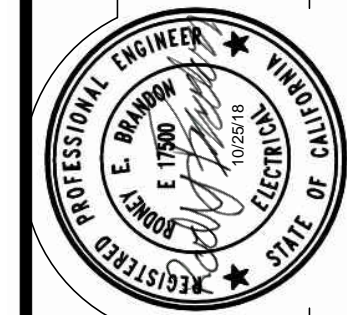


DRAWN BY
DG

DESIGNED BY
SL

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MC

ENGINEER, R.C.E. NO. E17500



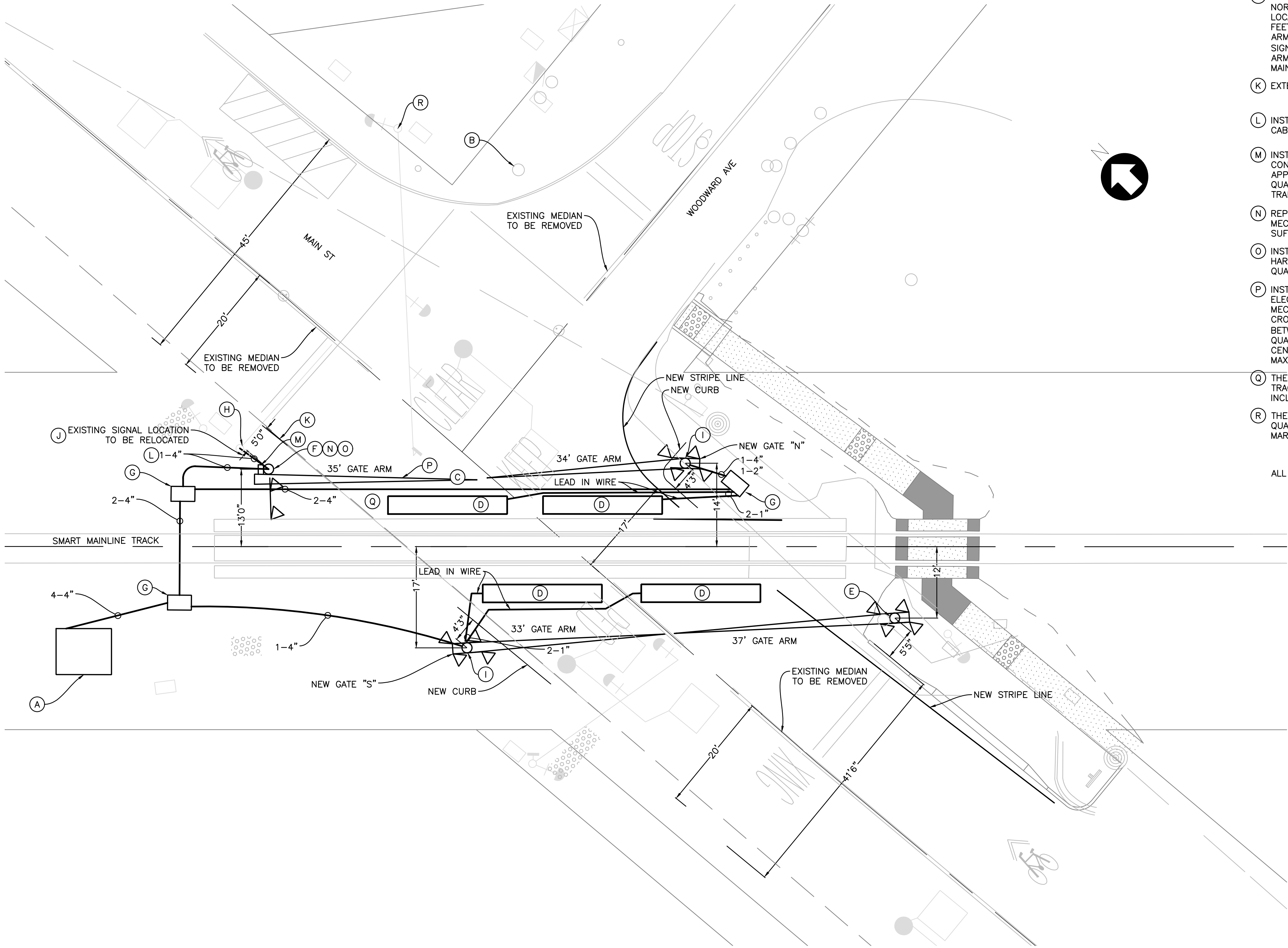
MAIN STREET GATES,
PENN GROVE CA

SCHEMATIC CABLE PLAN

Date	Revision	By

SCALE N.T.S.
DATE 6/19/18
JOB NO. XXXX
DRAWING NUMBER
11 OF 12

Oct 29, 2018 - 12:45pm



KEYNOTES:

- (A) EXISTING GRADE CROSSING SIGNAL HOUSE TO STAY.
- (B) REMOVE EXISTING GRADE CROSSING SIGNAL AND FOUNDATION ON WOODWARD AVE.
- (C) SAWCUT ROADWAY TO INSTALL CONDUIT ACROSS ROADWAY ON NORTH SIDE OF TRACKS.
- (D) SAWCUT ROADWAY FOR VEHICLE DETECTION LOOPS. 6' X 10' MINIMUM SIZE.
- (E) ROTATE EXISTING GATES ON EXISTING FOUNDATION, INSTALL LONGER GATE ARMS AND COUNTERWEIGHTS, ETC. (SEE NOTE J)

- (F) INSTALL NEW MAST AND SIDELIGHTS FACING WOODWARD AVE. ON GATE IN NW QUADRANT. ROTATE SIGNAL AS SHOWN. INSTALL REQUIRED GATE ARM AND COUNTERWEIGHTS, ETC.
- (G) 30"x48" SIGNAL PULL BOX.
- (H) EXISTING CANTILEVER TO REMAIN IN PLACE.
- (I) LOOP VEHICLE DETECTORS SHALL TERMINATE ON AAR TERMINALS IN THE NEW GATE DOUBLE SIDED JUNCTION BOX BASES. LEAD IN WIRES SHALL RUN FROM DOUBLE JUNCTION BOX BASE TO SIGNAL HOUSE. LOOP VEHICLE DETECTORS SHALL BE SAWCUT INTO PAVEMENT. CONDUIT IS TO BE RUN FROM THE DOUBLE JUNCTION BOX BASE TO THE EDGE OF THE PAVEMENT WITH A WATER TIGHT FITTING ON THE END OF THE CONDUIT. CABLE THEN RUNS IN SAWCUT TO LOOP.
- (J) RELOCATE, IF NECESSARY, THE CROSSING GATE MAST LOCATED IN THE NORTHWEST (NW) QUADRANT FROM ITS CURRENT LOCATION TO A LOCATION WHERE THE CROSSING GATE ARM IS: NO LESS THAN TEN FEET FROM THE CENTERLINE OF THE TRACK, AND; MAINTAINS A GATE ARM CLEARANCE OF FOUR TO FIVE FEET FROM THE EXISTING TRAFFIC SIGNAL CANTILEVER / SIGN IN THE SAME QUADRANT DURING THE GATE ARM RAISING AND LOWERING CYCLES WITH NO WIND IMPACT AND; MAINTAINS A FIVE FOOT DISTANCE BEHIND THE CURB LINE.
- (K) EXTEND NW CURB TO JUST SOUTH OF RELOCATED GATE AND CABLE.

- (L) INSTALL NEW CONDUIT AND CABLE TO NW GATE AND NEW CONDUIT AND CABLE FROM GATE TO CANTILEVER.
- (M) INSTALL, IF NECESSARY, A MAXIMUM OF THREE FOOT OFFSET GATE ARM CONVERSION BRACKET AS SUPPLIED BY L & W INDUSTRIES OR APPROVED EQUAL ON THE GATE ARM MECHANISM LOCATED IN THE NW QUADRANT TO ACHIEVE THE MAXIMUM GATE ARM CLEARANCE FROM THE TRAFFIC SIGNAL CANTILEVER. SEE NOTE R.
- (N) REPLACE THE EXISTING STUB SIGNAL MAST SUPPORTING THE GATE MECHANISM LOCATED IN THE NW QUADRANT WITH A SIGNAL MAST OF SUFFICIENT HEIGHT TO SUPPORT THE OFFSET WIND GUARD.
- (O) INSTALL AN OFFSET WIND GUARD AND ALL THE NECESSARY MOUNTING HARDWARE TO RESTRAIN THE OFFSET GATE ARM LOCATED IN THE NW QUADRANT IN ITS VERTICAL CONDITION DURING HIGH WIND EVENTS.
- (P) INSTALL A HIGH WIND PROFILE GATE ARM, AS SUPPLIED BY NATIONAL ELECTRIC GATE COMPANY OR APPROVED EQUAL ON THE GATE MECHANISM LOCATED IN THE NW QUADRANT. ENSURE THAT THE CROSSING GATE ARM IS OF SUFFICIENT LENGTH THAT THE CLEARANCE BETWEEN IT AND THE GATE ARM LOCATED IN THE NORTHEAST (NE) QUADRANT ARE NO MORE THAN ONE FOOT FROM THE ROADWAY CENTERLINE WHEN THEY ARE IN THE HORIZONTAL POSITION. THE MAXIMUM GATE ARM LENGTH IS 36 FEET.
- (Q) THERE IS AN ABSOLUTE MINIMUM CLEARANCE OF 10 FEET FROM THE TRACK CENTERLINE AND ANY EQUIPMENT INSTALLED AT THE CROSSING, INCLUDING THE WIND GUARD.
- (R) THE TRAFFIC SIGNAL CANTILEVER ASSEMBLY IN PROXIMITY TO THE NW QUADRANT GATE ARM IS TO BE REDUCED BY 2 FEET AS SHOWN ON MARK THOMAS PLAN SHEET L-1.

ALL DIRECTIONS ARE GEOGRAPHICAL.

DRAWN BY
DG

DESIGNED BY
SL

CHECKED BY
MC

MAIN STREET GATES,
PENN GROVE CA

SIGNAL SYSTEM SITE PLAN

Date	Revision	By

SCALE: 1"=10'
DATE: 10/29/18
JOB NO.: XXXX
DRAWING NUMBER: 12 OF 12